Suid-Afrikaanse Tydskrif vir Geneeskunde : South African Medical Journal

Kaapstad, 28 November 1959 Deel 33 No. 48 Volume 33 Cape Town, 28 November 1959

General Practice Series

SIMPLE ANAESTHETIC METHODS FOR GENERAL USE

WILLEM LAMBRECHTS, M.B., CH.B., (Cape Town), *Nuffield Dominion Clinical Assistant*, and JAMES PARKHOUSE, M.D., F.F.A.R.C.S., D.A., *First Assistant, Nuffield Department of Anaesthetics, University of Oxford.*

The practical difficulties of anaesthesia can be increased to an unnecessary extent by the use of complicated apparatus—this is especially true for the relatively inexperienced administrator. When simple anaesthetic techniques are employed, however, the variety of accidents to which the patient is exposed is reduced. Indeed, the following generalization can be made: the more mechanical parts and sensitive devices an anaesthetic apparatus incorporates, the more it distracts the user's attention from the patient, and the more knowledge is required for its supervision.

Very often elaborate apparatus also requires special care from skilled technicians. Other responsibilities are added if a practitioner whose financial resources are limited, has to work in a place where medical gas supplies are expensive or difficult to obtain, or when portability is a prime consideration. A practitioner working under such conditions may justifiably feel discouraged by the fact that the authors of reports from the 'expert' anaesthetic centres of the world, in their descriptions of technique, take it for granted that more or less elaborate apparatus is available. Such reports lead to the conclusion that expensive equipment is essential for good results, and that the only alternatives to an up-to-date gas machine are open-drop ether and spinal analgesia.

The purpose of this article is to bring to the notice of general practitioners the fact that many skilled and experienced anaesthetists are tending to think in terms of greatly simplified apparatus and methods of administration. The concept of simple anaesthetic techniques is, of course, not new,[1] but there has not always been agreement on the exact nature of these techniques. Macintosh,[2] over a period of some years, has taken pains to indicate the lines that should be followed and, with his colleagues, has designed excellent equipment for this purpose.

Apparatus

For the past 18 years, the Nuffield Department of Anaesthetics at Oxford has been making use of air as a vehicle for inhaled anaesthetic vapours, and for this purpose simple quantitative draw-over inhalers have been designed. The apparatus will be desribed only briefly, because the technical details can be found elsewhere.[3]

The E.M.O. inhaler* (Fig. 1) is designed to deliver any desired concentration of ether vapour, irrespective of the variations in temperature of the liquid ether. The scale is marked from 0 - 20 volumes per cent of ether. Special E.M.O. inhalers have also been designed for the administration of other liquid anaesthetic agents, e.g. halothane, trichlorethylene and the halothane-ether azeotropic mixture.[4] The Oxford Inflating Bellows[5] (Fig. 2) was designed for use in conjunction with the E.M.O. inhaler. The bellows incorporates a compression spring so that when the patient's respiration has emptied the concertina, it will refill by drawing air into itself through the inhaler. It also affords a useful index of respiration under all circumstances. Two valves ensure unidirectional flow, and re-breathing is therefore avoided. A stopcock is provided through which the air can be enriched with oxygen, if required, and this can be done from any oxygen cylinder fitted with a reducing valve. The bellows can also be used to inflate the patient's lungs when spontaneous respiration has been depressed or abolished.

Advantages

This simple compact apparatus is a most versatile piece of equipment. Except for very small children, all types of patient can be anaesthetized with it, including thoracic, cardiac, and poor-risk cases. The apparatus can be used with a mask or endotracheal tube, and for spontaneous or controlled respiration. A non-return valve, such as the Ruben[6] or Mitchell[7] valve, can quite conveniently be used in conjunction with it. It is portable and can be used under the most cramped and difficult conditions. Maintenance problems are reduced to a minimum.

Air, as a vehicle for anaesthetic vapours, offers great advantages in that it is always available, and does not involve expenditure. Patients who have a good colour while breathing on their own pre-operatively, should retain this colour when breathing an ether-air mixture, or on being inflated with one, provided the technique is correct. As proof of this we have personally used the apparatus described for many thoracic operations, with air as the vehicle; in these cases even with the lung retracted out of the surgeon's field we have always found arterial oxygen saturations to be within the normal range.

We would recommend ether for use by the inexperienced anaesthetist because of the inherent safety that this agent offers. It must be appreciated that the suggestion of using ether-air does not necessarily imply deep anaesthesia, with

* The name of the inhaler is derived from Epstein-Macintosh-Oxford (E.M.O.).

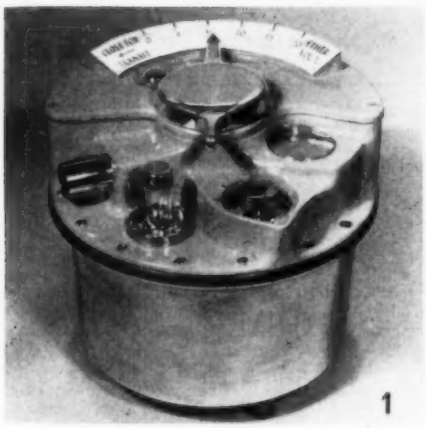


Fig. 1. The E.M.O. inhaler.

Fig. 2. The Oxford Inflating Bellows.

its unpleasant after-effects, in every case. The assumption that deep anaesthesia is necessary with ether has often clouded the argument for and against this anaesthetic agent. In fact, after induction with thiopentone and a muscle relaxant, ether can be used in a 3% concentration to ensure unconsciousness, in the same way that nitrous oxide, oxygen and pethidine are used. Light unconsciousness can be maintained with this concentration and, when muscle relaxants are used, this is all that is necessary.[8] The use of the E.M.O. inhaler also ensures the delivery of exactly the desired concentration. From experience it has been found that 3% ether is an adequate concentration to produce unconsciousness, and that this concentration can be administered for a virtually unlimited time without producing harmful effects.[2] This procedure also ensures that the patient will be awake as soon as if nitrous oxide had been employed. Alternatively, if it is not considered desirable to use muscle relaxants, ether may be used as the sole anaesthetic agent, in which case the E.M.O. inhaler provides a smoothly graduated induction. Any desired level of anaesthesia can be achieved and maintained, as can be done with other kinds of apparatus. Where analgesia is required in labour, or for such procedures as cleaning minor burns, E.M.O. inhalers designed for ether or trichlorethylene can also be used.

For those anaesthetists who have an inherent dislike of ether, specially designed E.M.O. inhalers can be used for the vaporization of halothane, the azeotropic mixture of halothane and ether, or trichlorethylene. The inhalers can also be used in conjunction with a standard anaesthetic machine as a vaporizer for volatile agents, in which circumstances they have the advantage over the use of the standard Boyle bottle of delivering accurately known concentrations whatever the liquid level may be in the vaporizer. For this reason they offer an obviously increased safety margin in cases where the anaesthesia must be handed over to a second person who may be inexperienced.

The Oxford Inflating Bellows can be used alone as a resuscitator in cases of respiratory failure, whether due to anaesthesia or disease. Because of the unidirectional valves, the system described ensures that there is no accumulation of carbon dioxide. Control of the respiration is therefore facilitated, and there is no necessity for dependence on soda-lime.

Deflagrations and Detonations

In any discussion on the use of ether as an anaesthetic agent, mention must be made of the problem of explosions. Clinically, ether is considered a safe anaesthetic agent even in the hands of a relatively inexperienced anaesthetist. However, a patient is often deprived of this safety margin offered by ether because of the administrator's fear that a fire or explosion may be produced. We must agree with the statement in the Report by the Working Party on Anaesthetic Explosions[9] that ' . . . the problem presented by the use of electrical apparatus in the theatre and elsewhere is not all told in the history of anaesthetic explosions. There are also misadventures which occur because the anaesthetist is afraid to use an explosive anaesthetic in conjunction with such apparatus.'

A clear distinction should, however, be made between the relatively innocuous *deflagrations* which might occur in ether-air mixtures, and the extremely dangerous *detonations* which result when mixtures rich in oxygen or nitrous oxide are ignited. Such detonations do *not* develop in ether-air mixtures contained in the relatively narrow ducts of our anaesthetic machines.[10] On the other hand, there is a wide range of mixtures of ether and oxygen in which the combustion process may be a violent detonation and the whole range of flammability is much wider than in ether-air mixtures.

CONCLUSION

The future of anaesthesia as a whole probably lies in the use of simple apparatus and techniques which have a universal application. We would therefore urge the occasional anaesthetist to adopt this practice. More important than all the other advantages offered by the simplicity of this approach, is the factor of safety. Not all people who are called upon to administer anaesthetics—especially in a country of vast size with limited medical facilities—can be expected to be expert anaesthetists, but they can be expected to give a safe anaesthetic. The apparatus and technique described makes such a safe anaesthetic available to anybody with medical training and a basic knowledge of the science of anaesthesia.

SUMMARY

Elaborate apparatus is not an essential requirement for good anaesthesia. There are times when such apparatus can be more of a liability than an advantage, especially when used by an inexperienced administrator, or under circumstances where complicated apparatus is poorly maintained. Simple apparatus need not limit the scope of the anaesthetist's practice. The apparatus and technique described in this paper are suitable for use under all conditions. The method involves the quantitative administration of anaesthetic vapours using air as a vehicle, through a non-return system.

REFERENCES

1. Nosworthy, M. D. (1953): Anaesthesia, **8**, 247.
2. Macintosh, R. R. (1955): Brit. Med. J., **2**, 1054.
3. Epstein, H. G. and Macintosh, R. R. (1956): Anaesthesia, **11**, 83.
4. Epstein, H. G. (1959): Personal communication.
5. Macintosh, R. R. (1953): Brit. Med. J., **2**, 202.
6. Ruben, H. (1955): Anesthesiology, **16**, 643.
7. Mitchell, J. V. (1959): Personal communication.
8. Macintosh, R. R. (1953): Proc. Roy. Soc. Med., **47**, 33.
9. Working Party, Ministry of Health (1956): *Report on Anaesthetic Explosions including Safety Code for Equipment and Installations.* London: Her Majesty's Stationery Office.
10. Macintosh, R. R., Mushin, W. W. and Epstein, H. G. (1958): *Physics for the Anaesthetist*, 2nd ed., p. 340-341, 345. Oxford: Blackwell Scientific Publications.

STUDIES OF SERUM POLYENOIC FATTY ACIDS IN INFANTS WITH KWASHIORKOR*

H. E. SCHENDEL and J. D. L. HANSEN

Departments of Medicine and Child Health, University of Cape Town

There is some resemblance between the alleged manifestations of 'essential fatty acid' deficiency and the symptomatology of kwashiorkor (infant protein malnutrition). Furthermore, the well-documented observation that the liver is usually enlarged and fatty in this syndrome indicates a defect in fat metabolism which needs investigation.

Earlier work in this laboratory has confirmed reports that the concentration of total serum cholesterol is low in infants with kwashiorkor at the time of admission to hospital, and that it rises rapidly with treatment to control levels after a transient peak. If one accepts the theory that cholesterol is part of the soluble lipo-protein complex, then one is tempted to suggest that the concentration of serum cholesterol (its ester or the unsaturated fatty acids of its ester) might be a reflection of fat transport. It was decided, therefore, to estimate the concentration of the total and polyunsaturated fatty acids during the treatment of infants with kwashiorkor.

The concentration of these fatty acids were estimated in 19 cases of kwashiorkor, aged 1-3 years, and in 8 well nourished (convalescent poliomyelitis) control infants of a similar age who were on a mixed institutional diet. The infants with kwashiorkor received various fat-free synthetic formulae or skim milk for the first 2 weeks and finally a mixed diet. The serum lipids were extracted according to the procedure of O'Connell, and the unsaturated fatty acids were estimated by the alkali isomerization method of Herb and Riemenschneider.

The mean serum concentration of total fatty acids and of 3 of the polyunsaturated fatty acids did not appear to differ appreciably from the control series at the time of admission. The concentration of the trienoic acids were significantly lower (39, compared with 59 mg./l.) and the concentration of the dienoic acids appeared to be somewhat higher than in the controls (427, compared with 337 mg./l.). These observations are in conflict with those of other workers who have observed a pattern of polyunsaturated fatty acids in the serum of 34 malnourished infants similar to that reported in rats with 'essential fatty acid' deficiency. There is a striking similarity however, between those reports and the pattern which develops in the serum of our cases of kwashiorkor as they recover.

During the treatment of these cases a trend becomes apparent for the concentrations of the di-, tetra-, penta- and hexa-enoic acids to fall, and for the concentration of the tri-enoic acids to rise. These trends are also observed when the data are expressed as a percentage of the total fatty acids.

These serum concentrations of unsaturated fatty acids do not necessarily reflect tissue reserves. The rapidity with which the lipid pattern becomes similar to that reported in rats with 'essential fatty acid' deficiency may suggest that: (1) Either the tissue reserves are minimal, or (2) the mobilization of liver and depot fat imposes a great demand on the supply of these acids which are believed to be required for fat transport. If there is no shortage of these unsaturated fatty acids in kwashiorkor, as might be suggested by the fact that fat-free synthetic formulae have been used with partial success in treating infants with this syndrome, then 2 possible mechanisms may be suggested to explain the fatty liver: There may be a deficiency of one of the components of the soluble lipid complex (e.g. lipoprotein), or the liver is unable to combine these components in the required fashion (e.g. deficiency of an esterase for the synthesis of unsaturated cholesterol ester).

Although further experiments are required to define the correct mechanism, these data are interesting in the way that the profound changes in the concentration of various polyunsaturated fatty acids, which occur during the treatment of kwashiorkor, mimic those which occur during the development of the 'essential fatty acid'-deficiency syndrome in the rat.

This work was done in the Clinical Nutrition Research Unit supported in the Department of Medicine, University of Cape Town, by the South African Council for Scientific and Industrial Research, the Williams Waterman Fund for the Combat of Dietary Diseases, Research Corporation, New York, USA, and the A. R. Richardson Fund, Cape Town.

BIBLIOGRAPHY

Schendel, H. E. and Hansen, J. D. L. (1957): S. Afr. Med. J., **31**, 1299.

* Abstract of paper presented at Research Forum, University of Cape Town, 20 October 1959.

BOEKE ONTVANG : BOOKS RECEIVED

Biological Psychiatry. Edited by Jules H. Masserman, M.D. Pp. xvi + 338. Illustrations. $9.75. New York and London: Grune & Stratton, Inc. 1959.

Progress in Hematology. Vol. 2. Edited by Leandro M. Tocantins, M.D. with 19 contributors. Pp. vi + 290. Illustrations. $9.75. New York and London: Grune & Stratton, Inc. 1959.

The Artificial Feeding of Normal Infants. By William Emdin, M.D., D.P.H., Ph.D., B.A. Pp. 113. Illustrations. 16s. Cape Town: Howard B. Timmins (Pty.) Limited. 1959.

Medical Museum Technology. By J. J. and M. J. Edwards. Pp. ix + 172. Illustrations. English price 21s. London, New York, Toronto: Oxford University Press. 1959.

Major Endocrine Disorders. 3rd edition. By S. Leonard Simpson, with the collaboration of A. Stuart Mason and G. I. M. Swyer. Pp. vii + 459. Illustrations. English price 50s. London, New York, Toronto: Oxford University Press. 1959.

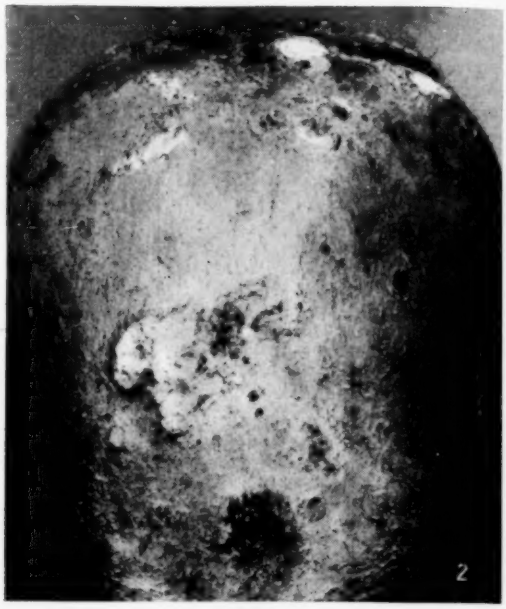
The Year Book of Neurology, Psychiatry and Neurosurgery 1958-59. Edited by Roland P. Mackay, M.D., S. Bernard Wortis, M.D. and Oscar Sugar, M.D. Pp. 623. 109 figures. $8.50. Chicago: Year Book Publishers, Inc. 1959.

The Year Book of Orthopedics and Traumatic Surgery 1958-59. Edited by Edward L. Compere, M.D., F.A.C.S., F.I.C.S. Section on *Plastic Surgery*. Edited by Neal Owens, M.D., F.A.C.S., F.I.C.S. Pp. 445. 227 figures. $7.50. Chicago: Year Book Publishers, Inc. 1959.

DIE UITWERKING VAN GRISEOFULVIN OP FAVUS — IN BEELD

JAMES MARSHALL, M.D., *Departement Dermatologie, Universiteit van Stellenbosch*

Afb. 1



Afb. 2

Afb. 3

Afb. 1. Junie 1958. Favus, wat etlike jare geduur het, by 'n 12-jarige Kleurlingmeisie. Die kopvel is deur 'n dik, sagte, geel-wit kors bedek (Lat. *favus* = heuningkoek) en die dun hare is droog, bros en dof. *Trichophyton schoenleini* is uit die hare gekweek.

Die kopvel is die uitverkore plek vir favus, maar die huid en die naels word ook soms aangetas. Favus ontstaan gewoonlik by kinders, maar volwassenes is nie immuun nie. Favus van die kopvel is uiters chronies; dit is nie tot spontane genesing geneig nie, maar dit veroorsaak uiteindelik 'n sikatrisiële atrofie en alopesie. Die standaard-behandeling van die verlede, röntgenterapeutiese ontharing gevolg deur die aanwending van antiskimmel-salwe, was nie altyd suksesvol nie.

Afb. 2. Maart 1959. Na ontharing en plaaslike behandeling het die toestand verbeter en weer hervat. Die nuwe hare bevat skimmelelemente en tipiese *scutula*, massas van skimmeldrade en reste van epiteelselle het verskyn. Griseofulvin (Grisovin, Fulcin), 250 mg. viermaal daagliks, 25 dae lank, is voorgeskryf.

Griseofulvin,[1-4] 'n antiskimmel-antibiotikum, is 'n metaboliese produk van *Penicillium griseofulvum* Dierckx. Dit skyn effektief te wees teen die keratolitiese skimmels (trichophyta, epidermophyta en microspora) wat omloop by die mens veroorsaak.

Afb. 3. Augustus 1959. Die pasiënt het verdwyn, maar 5 maande later is sy opgespoor. Die hare lyk normaal, maar daar is 'n mate van atrofie van die kopvel (hare kort afgeknip om dit te toon), en 'n paar skubbe is aanwesig. Mikroskopiese ondersoek het gedegenereerde skimmel-elemente in sommige hare getoon, maar die skubbe het alleenlik uit epiteelselle bestaan.

Grisovin is voorsien deur Glaxo Laboratories S.A. (Pty.) Ltd.
Foto's: Mnr. Robert Ellis, A.I.B.P., A.C.P.I.P., Departement Kliniese Fotografie, Karl Bremer-Hospitaal, Bellville, Kaap.

VERWYSINGS

1. William, D. I., Marten, R. H. en Sarkany, I.: (1958) Lancet, 2, 1212.
2. Blank, H. en Roth, F. J. (1959): Arch. Derm. Syph. (Chicago), 79, 259.
3. Van die Redaksie (1959): S. Afr. T., Geneesk., 33, 433.
4. Cochrane, T. en Tullett, A. (1959): Brit. Med. J., 2, 286.

Suid-Afrikaanse Tydskrif vir Geneeskunde : South African Medical Journal

VAN DIE REDAKSIE : EDITORIAL

AKUTE INKORTING VAN ARTERIËLE TOEVOER: VERBETERDE VOORUITSIGTE MET OPERATIEWE BEHANDELING

'n Sestig-jarige man kry skielik 'n ‚kramp' in sy kuit, en kort daarna voel sy voet ‚dood' en kan hy sy tone nie meer beweeg nie. Sy geneesheer stuur hom bed-toe en skryf krampwerende middels voor. Na drie dae is daar geen verbetering nie. Hy word na die hospitaal toe gestuur waar sy been bo die knie afgesit word, omdat vroeë gangreen reeds ingetree het . . . Hierdie tragiese verloop van sake is 'n alledaagse gebeurtenis en word deur die meeste geneeshere as min of meer onvermydelik aanvaar. Die moderne direkte arteriële chirurgie bied egter vir 'n redelike aantal van hierdie pasiënte hoop op behoud van hulle ledemate, *mits hulle betyds geopereer kan word.*

Akute inkorting van arteriële toevoer kan volg op arteriële embolisme of trombose (meestal bo-op aterosklerose) of op besering wat deurkliewing van, druk op, trombose, of spasme van 'n slagaar kan veroorsaak. Die beste kans op herstel van die bloedsomloop in sulke gevalle lê in die rigting van operatiewe behandeling liewers as in afwagtende konserwatiewe behandeling. Ons wil nie hier die besonderhede oor die verskillende prosedures, waarvan die chirurg gebruik kan maak, behandel nie. Wat ons egter wel wil doen is om 'n kort oorsig oor sommige van die probleme in hierdie verband te gee.

1. Primêre obstruksie is op sigself gewoonlik redelik maklik hanteerbaar. 'n Embolus kan uitgehaal word (embolektomie), 'n kort trombose kan deur trombo-endarterektomie verwyder word; 'n lang trombose kan deur 'n omleidingstransplantaat omseil word; en 'n aneurisma met trombose, bv. in die arteria poplitea, kan verwyder en met 'n transplantaat vervang word.

2. Die aanwesigheid van sekondêre donkerrooi stolsel, wat distaal tot die primêre obstruksie afwaarts strek en soms feitlik die hele slagaar vul, het die chirurg vroeër soms moedeloos gemaak. Deesdae word dikwels van proksimaalwaartse spoeling vanuit 'n distale klein slagaartjie gebruik gemaak om van hierdie stolsel ontslae te raak. Deur hierdie maatreël tesame met ander kunsies toe te pas, kan die distale slagaar gewoonlik weer van sekondêre stolsel bevry word.

3. Permanente afsluiting, bv. deur aterosklerose, van meer distaalgeleë slagare wat te klein is vir direkte chirurgiese ingrepe, bly nog 'n onoorkomelike moeilikheid. Hierdie moeilikheid is daarvoor verantwoordelik dat sommige ledemate wat op hierdie manier aangetas is tog sonder meer afgesit moet word.

4. Die doodgaan van weefsel as gevolg van isgemie van te lange duur, bring mee dat herstel van die bloedsomloop nie meer die dooie weefsels sal kan help nie. Hoe lank neem dit voordat weefsel onherstelbaar beskadig word, d.w.s. doodgaan? Soveel faktore is hierby betrokke dat geen vaste antwoord gegee kan word nie. Daar word dikwels gesê dat na agt uur van die begin van die arteriële afsluiting af (byvoorbeeld a.g.v. 'n embolus), dit nutteloos is om die afsluiting op te hef omdat die distale weefsels reeds dood sal wees. *Dit is glad nie noodwendig waar nie.* Daar is al menigvuldige gevalle beskryf wat na 'n langer afsluitingstyd (bv. ses-en-dertig uur) herstel het. Die verklaring hiervoor is hoofsaaklik dat 'n groter of kleiner hoeveelheid kollaterale sirkulasie vir langer of korter tye weefseldood kan afweer. Klaarblyklik is die kanse dat weefseldood sal intree kleiner met korter tye van inkorting van die arteriële toevoer. Die praktiese gevolgtrekking is maklik: die geneesheer moet probeer om die pasiënt met akute arteriële afsluiting so gou moontlik (liefs binne agt uur) te besorg by 'n hospitaal waar hy geopereer kan word; maar hy moet *nie* die geval as hopeloos beskou bloot omdat 'n arbitrêre tyd van bv. agt uur verstryk het nie. Die voorkoming van hierdie probleem van onomkeerbare weefseldood lê dus meer dikwels in die hande van die algemene praktisyn as van die chirurg.

5. Kan herstel van bloedsomloop ooit lewensgevaarlik wees? Hoewel dit in die literatuur oor die onderwerp nie sterk gestel word nie, is dit na aanleiding van ons ondervinding met die sogenaamde ‚tourniquetskok', met die vergruisingsindroom, en met spesifieke gevalle van arteriële afsluiting duidelik dat die herstel van die bloedsomloop van weefsels, wat onderhewig was aan 'n ernstige graad van isgemie, lewensgevaarlik kan wees. Dit is so omdat giftige stowwe uit die isgemiese dele lewensbelangrike organe erg kan beskadig. Die besluit of hy in gevalle van afsluiting van lang duur die bloedsomloop moet probeer herstel om die ledemaat te probeer red, of the ledemaat moet amputeer om die lewe van die pasiënt te probeer red, stel hoë eise aan die oordeel van die chirurg.

As gevolg van hierdie verskillende probleme waarmee die chirurg in sulke gevalle te kampe het, kan nie verwag word dat daar in alle gevalle daarin geslaag sal word om die ledemaat te red nie. Trouens, dit is waarskynlik dat op die oomblik miskien maar 'n derde tot die helfte van hierdie ledemate met akute arteriële obstruksie deur operasie herstel word. Maar die herstel van selfs net een derde tot die helfte van hierdie ledemate is veel beter as die klein aantal wat waarskynlik met konserwatiewe behandeling alleen gered sou kon word. Die aantal wat herstel, behoort toe te neem namate die tydperk van isgemie verkort word deurdat die pasiënt betyds na die chirurg gebring word.

Om dit vir die pasiënt met akute arteriële afsluiting moontlik te maak om voordeel te trek uit die nuwe ontwikkelinge in die arteriële chirurgie, is dit nodig dat sy huisarts, eerstens, die toestand sal herken, tweedens, bewus sal wees van die moontlikhede van operatiewe behandeling en, derdens, sal sorg dat hy so gou moontlik gebring word na 'n plek waar die nodige fasiliteite beskikbaar is.

Wat die diagnose betref, behoort skielike pyn, ‚dooie gevoel', en koudheid of verlamming van 'n ledemaat tot 'n ondersoek van die polse aanleiding te gee. Afwesige polse, saam met een of meer van die genoemde simptome, moet voorlopig as bewys van arteriële inkorting beskou word,

en hierdie bevindinge regverdig die vervoer van die pasiënt na 'n geskikte hospitaal. 'n Waarskuwing is nodig dat die diagnose van 'n akute skyfletsel of heupjig in gevalle met die genoemde simptome, moontlik tot vertraging mag lei. Die bevinding van afwesige distale polse behoort te voorkom dat arteriële inkorting vir hierdie soort toestande aangesien word.

Wanneer die definitiewe diagnose van akute arteriële afsluiting gemaak of vermoed word, moet die pasiënt onmiddellik na 'n hospitaal geneem word waar fasiliteite vir behandeling van hierdie soort geval beskikbaar is. *Tyd is hier deurslaggewend want die toestand is veel dringender as akute appendisitis.*

THERAPEUTIC ASPECTS OF ACUTE IMPAIRMENT OF THE PERIPHERAL ARTERIAL CIRCULATION

A sixty-year-old man feels a sudden cramp in his calf. Soon afterwards his foot feels numb and he is unable to move his toes. His doctor puts him to bed and prescribes antispasmodics. After three days there is no improvement in his condition. He is admitted to hospital where his leg is amputated above the knee because gangrene has set in . . . This tragic course of events occurs frequently and is accepted by most doctors as more or less inevitable. If, however, an operation is performed immediately, it may be possible to save the limbs of many people afflicted in this way by the application of modern direct arterial surgery.

Acute impairment of arterial circulation can be the result of embolism or thrombosis (often superimposed on atherosclerosis), or of injury causing severance of, pressure on, or thrombosis or spasm of an artery. Operative treatment rather than delayed conservative treatment is indicated in cases of this nature. We do not intend describing the *methods* of treatment used by surgeons, but wish to give a short survey of some of the problems encountered in this connection.

1. Primary obstruction as such is usually readily amenable to treatment. An embolism can be removed (embolectomy). A short thrombosis can be removed by thrombo-endarterectomy; a long thrombus can be circumvented by a transplantation; and an aneurysm with thrombosis (e.g. in the popliteal artery) can be removed and a transplantation carried out.

2. Previously, surgeons were disheartened by finding a secondary deep-red coagulated mass, extending distally from the primary obstruction and filling the whole artery. Today a mass such as this can often be washed away in a proximal direction by starting in a small distal artery. By employing this method, as well as other 'tricks', the coagulated mass can usually be cleared out of the distal artery.

3. The management of distal arteries which are completely occluded and which are too small for direct surgical intervention, remains an insurmountable problem resulting in the ultimate inevitable loss of limbs.

4. As a result of the death of tissue, due to ischaemia which has lasted too long, it becomes impossible for this tissue to utilize a repaired circulation. How long does it take tissues to become damaged irreparably, i.e. to die? It is difficult to reply to this question because so many factors are involved. It is often stated that it is futile to try to terminate an acute occlusion eight hours after the commencement of the occlusion (e.g. by an embolus), because by this time the tissues would have died. *This is not necessarily true.* Many cases have been described where recovery took place after an occlusion that lasted for thirty-six hours. The obvious explanation in such cases is that the death of tissue can be staved off for longer or shorter periods by a more or less adequate collateral circulation. The chances that tissues may die are clearly less when the periods of impairment of arterial supply are shorter. The practical conclusions are obvious: If the doctor suspects acute arterial occlusion, he should arrange for the patient's immediate admission to a hospital where an operation can be performed (preferably within eight hours). The doctor should however *not* regard the case as hopeless just because an arbitrary period of eight hours has elapsed. The prevention of this problem of irreversible destruction of tissue more often rests with the general practitioner than with the surgeon.

5. Can the repair of circulation be dangerous to life? Although this aspect has not been particularly stressed in the literature, it is clear, on the basis of experience with cases of so-called tourniquet shock, the crush syndrome, and arterial occlusion, that the restoration of the circulation after serious ischaemia of tissues can be dangerous, because toxic substances from ischaemic areas can cause serious damage to vital organs. The surgeon's judgment is often put to a severe test by the following dilemma: should he try to restore the circulation in order to save a limb, or should he amputate the limb in order to save the patient's life?

In view of all the problems which the surgeon has to face in this connection, success cannot be expected in every case in which impairment of the circulation threatens the preservation of a limb. In fact, at present it is probably unlikely that it will be possible to save, by operation, the affected limbs in more than approximately a third to a half of the cases of acute arterial obstruction. However, even this number of successes is much greater than the number of cases that recover on conservative treatment alone. It should be possible to achieve still greater success provided surgical attention can be given to the patient at an early stage.

In order to enable a patient to derive the greatest possible benefit from the newer methods of arterial surgery, it is imperative, firstly, that the general practitioner should recognize the condition early; secondly, that he should be aware of the possibilities of operative treatment; and, thirdly, that he should make arrangements for the patient to be admitted, as early as possible, to an institution where the facilities are available for operative treatment.

Sudden pain in a limb, or a 'numb feeling' or coldness or paralysis of a limb should always point to the necessity for examining the pulses. Absent pulses in conjunction with one or more of the abovementioned symptoms should be interpreted as presumptive evidence of the impairment of arterial circulation and it should warrant the transport of the patient to a suitable hospital.

The diagnosis of an acute disc lesion (sciatica) in cases with these symptoms, may possibly lead to a delay in instituting treatment. The finding of absent distal pulses should prevent the possibility of an incorrect diagnosis.

Whenever a definite or presumptive diagnosis of acute arterial occlusion is made, the patient should immediately be transferred to a suitable hospital where facilities are available for the treatment of this type of case. *In these cases time is the decisive factor—even more so than in cases of acute appendicitis.*

MEGALOBLASTIC ANAEMIA IN INFANCY WITH SPECIAL REFERENCE TO TREATMENT WITH VITAMIN B_{12}

M. H. SHNIER, M.B., M.R.C.P., D.C.H., *Department of Paediatrics, Baragwanath Hospital*, and
J. METZ, M.B., B.CH., *South African Institute for Medical Research, Johannesburg*

Megaloblastic anaemia in malnourished Bantu infants was first reported by Altmann and Murray (1948), who detected megaloblasts in the bone marrow of 3 anaemic patients suffering from kwashiorkor. In 1 of their cases the megaloblasts disappeared from the bone marrow on ward diet alone; a secondary reticulocyte response, however, occurred with folic-acid therapy. Adams (1954) reported varying degrees of megaloblastic change in 8 cases suffering from kwashiorkor. Of 6 cases with mild changes in the bone marrow, 2 responded to crude liver extract together with vitamin B_{12}, while the effect of diet alone was found to be unpredictable.

Walt *et al.* (1956) reported 42 cases of megaloblastic anaemia in Bantu infants. Kwashiorkor was present in 22, but the state of nutrition in the remaining 20 cases was not defined. Folic acid, 15 mg. daily, was administered to 38 cases, 2 of whom received additional vitamin B_{12}. A reticulocyte response of 8% or more was observed in 30 of the 38 cases. In many of their cases the reticulocyte response was delayed for periods up to 22 days. Recovery with reversion of the bone marrow to normal occurred in 2 cases in whom folic acid was not administered. Walt *et al.* (1957) reported on a further 18 cases who on folic acid therapy developed a reticulocyte response above 11%. Kwashiorkor was present in 16 of these patients. Megaloblasts had disappeared from the bone marrow in those cases in whom the marrow examination was repeated within 96 hours of commencing folic-acid therapy.

Of the megaloblastic anaemias in infancy reported from the USA and various parts of Europe, all acceptable cases treated with folic acid or citrovorum factor have shown a substantial response (Zuelzer and Rutzky, 1953). Therapy with vitamin B_{12} has, however, produced inconsistent results. Lushby and Doan (1949) and Zuelzer and Rutzky (1953) have reported degenerative bone-marrow changes in patients treated with vitamin B_{12}. Where a partial response occurred, a second response could be induced with either folic acid or citrovorum factor. A satisfactory response to vitamin-B_{12} therapy has, however, been reported by Sturgeon and Carpenter (1950) and McPherson *et al.* (1949). It would appear that the cases seen in Italy, Switzerland, Germany and Algeria, unlike those in the USA, respond to vitamin-B_{12} therapy (Gerbasi 1958). In Italy megaloblastic anaemia in infancy frequently responds to the injection of highly purified liver extracts (Amato, 1946; Pecorella *et al.*, 1947). Gerbasi (1958) states that in Italy megaloblastic anaemia of infancy is more often than not associated with a deficiency of vitamin B_{12} in the diet.

As there is but scanty reference in the literature to the effect of vitamin-B_{12} therapy on the megaloblastic anaemia in infancy in Africa, it is the purpose of this paper to report the results of this form of treatment, and to describe some of the clinical and haematological features of the condition.

MATERIAL AND DIAGNOSTIC CRITERIA

The present study was conducted over a period of 35 months during which time 5,500 children, mostly Bantu, were admitted to one of the paediatric wards. The haemoglobin level, which was measured as oxyhaemoglobin in a Klett-Summerson photo-electric colorimeter, was determined in those children under 3 years of age who showed the slightest evidence of clinical anaemia. An iliac-crest marrow puncture was performed when the haemoglobin value was below 9·0 g. per 100 ml.

Protein malnutrition (kwashiorkor) was diagnosed when sparse, straight and depigmented hair, cheilosis or angular stomatitis, dermatosis and oedema were present. Those cases who were 60% or less of their expected weight (Harvard School of Public Health, 1954), but who showed none of the aforementioned signs of malnutrition, were classified as marasmic.

The routine dietetic treatment in this series consisted of 10 feeds a day of a preparation of skimmed or half-skimmed milk, given every 2 hours. When anorexia was present the feeds were given through an intragastric tube for the first 2 days. When the oedema subsided and the child showed evidence of clinical improvement, meat and vegetables were added to the diet.

Megaloblastic anaemia was diagnosed when megaloblasts or numerous giant myeloid cells were present in the marrow. Zuelzer and Rutzky (1953) regard the presence of numerous giant myeloid cells in the marrow as indicative of deficiency of anti-megaloblastic factors, and the diagnostic criteria have been broadened to include those cases in whom only changes in the granulocyte series were evident.

RESULTS

There were 68 children in whom the diagnosis of megaloblastic anaemia was made. Of these, 22 cases were discarded on account of inadequate documentation. One further case was discarded because the marrow became megaloblastic during the course of a haemolytic type of anaemia. The features of the remaining 45 cases are presented below.

Age and Seasonal Incidence

The age of the cases ranged from 6 to 30 months, with a mean age of 20 months; 5 were aged 6–9 months, 26 10–18 months, and 13 19–24 months; 1 case was aged 30 months.

There was no seasonal variation of the incidence, cases occurring evenly throughout the year.

Feeding History and State of Nutrition

Accurate information on the dietary history was often difficult to obtain. All the children had received a diet rich in carbohydrates in the form of maize meal, potatoes and pumpkin. There were 20 children who had received inadequate amounts of milk as part of their diet. No child in this series had received breast feeds or green vegetables, and only 2 had received meat in their diet.

There were 29 cases who showed the features of protein-deficient malnutrition, and 13 others were marasmic. The remaining 3 children were fairly well nourished. An analysis of the weights of the children expressed as a percentage of the expected weight for age indicated that 36 of the 45

children were 60% or less of their expected weight (Mitchell and Nelson, 1954).

The serum-protein values were estimated in 18 patients. The total protein varied from 3·4 to 7·8 g. per 100 ml., and the serum albumin from 1·3 to 3·8 g. per 100 ml. The mean values were: total protein 4·85 g., albumin 2·20 g.

Presence of Infection

Of the 45 cases, 29 showed evidence of one or more types of infection. These were salmonella and Flexner dysentery (6 cases), pneumonia (13 cases), tuberculosis (6 cases), herpes simplex of the mouth (3 cases), pyrexia of unknown origin (3 cases), otitis media (2 cases) and upper-respiratory-tract infection (1 case). A further 9 cases were suffering from diarrhoea but no pathogenic organism was isolated from their stools.

Peripheral Blood

The haemoglobin value ranged from 2·9 to 8·8 g. per 100 ml. (mean 6·3 g.). The mean corpuscular haemoglobin concentration varied from 28 to 37%, and in 14 patients was 31% or less. The initial reticulocyte count ranged from less than 1% to 7%, and in 17 patients it was greater than 2%. Anisocytosis was marked in 27 cases, moderate in 15, and mild in 3, while poikilocytosis was marked in 22, moderate in 12, and mild in 11. Macrocytes were noted in 29 cases, and megaloblasts in 8. Anisochromia was detected in 6 patients; in the remainder the red cells appeared normochromic.

The total leucocyte count varied from 3·3 to 35·2 thousands per c.mm. Neutrophils were less than 2·0 thousand per c.mm. in 9 cases and a shift to the right was noted in 8 patients. Platelets were reduced in number in 14 cases.

Bone marrow

The marrow specimens were all of normal or increased cellularity. An erythroid reaction was present in 14 out of 31 cases in whom the myeloid erythroid ratio was calculated. In 14 specimens the changes in the marrow were mild; erythropoiesis was predominantly normoblastic, but numerous giant myeloid cells were present. Moderate changes were present in 20 specimens, where the predominant cell was the intermediate megaloblast; in the other 11 specimens numerous classical megaloblasts were present, and the picture was indistinguishable from that of pernicious anaemia in relapse.

Treatment

All the children received dietary therapy. In addition, vitamin B_{12} was given to 22 cases, folic acid to 6, and both to 3. Ward diet was the sole treatment in 13 cases.

(*a*) *Ward diet only.* Of the 13 children who were treated with ward diet alone: no response to therapy could be assessed in 6 of the cases. Of the remaining 7 (Table I), 4 showed a reticulocyte response greater than 5%, and in 2 of these the peak was greater than 10%. In 1 case the reticulocyte count rose from 1 to 5%, and 2 cases failed to show any reticulocyte response to ward diet. In the cases which responded, the maximum observed reticulocyte response occurred between the 15th and 23rd day after the commencement of therapy. The haemoglobin level rose by more than 2·0 g. per 100 ml. in 3 patients, was not significantly changed in 2, and fell in the remaining 2.

TABLE I. THE EFFECT OF THERAPY WITH WARD DIET ALONE ON 7 CASES AND FOLIC ACID BY MOUTH ON 6 CASES

Case No.	State of nutrition	Degree of bone marrow change	Haemoglobin: Before treatment (g.%)	Haemoglobin: After treatment (g.%)	Haemoglobin: After treatment Day	Reticulocytes: Before treatment (%)	Reticulocytes: After treatment Max. retic count (%)	Reticulocytes: After treatment Day	Remarks
				Ward diet					
13	Marasmus	Mild	*6·5	7·4	30	5	<1	30	Received blood transfusion
19	Malnut.	Moderate	6·4	9·7	15	4·5	8	15	
21	Malnut.	Mild	8·1	10·2	28	1	5	28	
24	Malnut.	Mild	8·9	9·0	19	7	5·5	15	
28	Marasmus	Mild	6·9	5·5	13	2	12·5	13	
31	Malnut.	Mild	*7·5	6·9	10	<1	<1	10	Received blood transfusion
36	Marasmus	Moderate	7·1	10·7	21	5	18	21	
				Folic acid					
3	Malnut.	Moderate	5·8	9·9	18	4	12	14	
10	Malnut.	Mild	6·2	10·8	9	1·5	7·5	16	Marrow reverted to normal
37	Marasmus	Mild	8·6	9·9	14	2	<1	14	Died 17th day
42	Malnut	Moderate	5·8	10·0	14	2	9	11	Developed hypochromia
45	Malnut.	Moderate	4·5	11·5	33	<1	24	32	Developed hypochromia
46	Malnut.	Moderate	5·9	9·6	12	2	24	12	

* Post-transfusion haemoglobin level.

(*b*) *Folic acid.* In 6 cases 15 mg. of folic acid was given daily by mouth for periods ranging from 7 to 18 days (Table I). In 5 cases a reticulocyte response varying from 7·5% to 24% occurred between the 7th and 33rd day after commencing treatment. These 5 cases showed an increase in haemoglobin level greater than 2·0 g. per 100 ml. within 11–33 days of commencing treatment. There was no reticulocyte response in 1 case, who showed giant myeloid cells but no megaloblasts in the marrow.

(*c*) *Vitamin B_{12}.* An intramuscular injection of 100μg. of B_{12} was administered on alternate days to 24 patients for a total of 6 injections. Response to treatment as judged by a return of the bone marrow to normal, or a significant rise in the reticulocyte count or haemoglobin level, occurred in all the cases in whom the effect of therapy could be assessed (Table II). The maximum reticulocyte response was observed

TABLE II. THE EFFECT OF THERAPY WITH INTRAMUSCULAR VITAMIN B_{12} IN 18 PATIENTS

Case No.	State of nutrition	Degree of bone marrow change	Haemoglobin: Before treatment (g.%)	Haemoglobin: After I.M. vit. B_{12} (g.%)	Haemoglobin: After I.M. vit. B_{12} Day	Reticulocytes: Before treatment (%)	Reticulocytes: After I.M. vit. B_{12} Max. retic count (%)	Reticulocytes: After I.M. vit. B_{12} Day	Remarks
6	Malnut.	Marked	*7·0	11·2	11	1	21	5	Received blood transfusion. Subsequent response to vitamin B_{12}
7	Marasmus	Marked	8·8	12·6	12	<4	22	5	
15	Marasmus	Marked	4·8	8·7	20	<1	26	7	Developed hypochromia
16	Malnut.	Marked	*11·0	12·5	28	<1	6	14	Received blood transfusion. Marrow reverted to normal on B_{12}
17	Malnut.	Mild	5·7	9·7	13	<1	19·5	4	
18	Malnut.	Moderate	6·5	10·5	28	3·5	7·5	4	Marrow reverted to normal
20	Malnut.	Moderate	8·4	10·4	29	1	13	10	Received blood transfusion.
22	Malnut.	Moderate	6·4	10·8	28	<1	15·5	6	Received blood transfusion Subsequent response to B_{12}
25	Marasmus	Mild	7·0	9·2	20	1	12·5	13	Developed hypochromia
27	Marasmus	Marked	4·0	7·5	15	2·5	36	8	
29	Malnut.	Moderate	4·6	8·1	18	1	10	8	Developed hypochromia
32	Malnut.	Moderate	4·0	11·4	22	3	7	7	Marrow revered to normal
33	Malnut.	Marked	4·0	11·4	16	<1	6	9	Marrow reverted to normal
34	Malnut.	Moderate	6·4	10·6	8	<1	22·5	8	
37	Marasmus	Moderate	4·2	9·0	14	3	25	9	
38	Malnut.	Moderate	5·4	11·2	15	3	26	3	
43	Malnut.	Moderate	*5·8	9·9	12	<1	43	6	Received blood transfusion. Subsequent response to B_{12}
44	Normal	Marked	*8·7	13·8	21	<1	17	8	Received blood transfusion. Subsequent response to B_{12}

* Post-transfusion haemoglobin level.

between the 3rd and 14th day after commencing treatment, with the majority of cases (61%) showing a maximum response between the 4th and 9th day. Treatment with B_{12} was given to 5 cases who had received blood transfusions previously and in whom haemoglobin levels had fallen subsequently; after treatment with vitamin B_{12} they all developed a reticulocyte response with a rise in haemoglobin levels. In 6 cases no response to treatment with vitamin B_{12} could be assessed. Two patients died shortly after treatment was begun, and in 3 cases follow-up studies were inadequate. One further case, with an associated severe iron deficiency, responded neither to vitamin B_{12} nor folic acid alone.

DISCUSSION

The age incidence in the present series is similar to that reported in children in the USA by Diamond (1953), and it is significant that the maximum incidence corresponds with the period of rapid growth. Of the present series of 46 cases, 42 showed evidence of disturbed nutrition, 36 being 60% or less of their expected weight for age. There was a close correlation between megaloblastic anaemia in infancy and disturbances in nutrition; the diets of these children were almost entirely devoid of green vegetables and were low in animal protein. During the period when the present series of 68 cases of megaloblastic anaemia were diagnosed, 800 malnourished children were admitted to hospital. This incidence of 8·5% in malnourished children is similar to that of 9% reported by Walt *et al.* (1957) in a similar group of children. Neither marasmus nor severe protein malnutrition is the sole cause of megaloblastic anaemia in infancy, for only 8–9% of children with kwashiorkor have been found to suffer from the disease.

The incidence of infection in this series was 86%, as compared with only 14% in a group of 105 cases of kwashiorkor investigated by Kahn (1958). It is possible that in children suffering from either malnutrition, undernutrition, or both, megaloblastic anaemia is precipitated by infection.

Of 7 cases receiving therapy with ward diet alone, the haemoglobin level rose significantly in only 3 patients. Response of the anaemia to ward diet is unpredictable, and when it occurs, the reticulocyte response and rise in haemoglobin value are generally less than in cases treated with folic acid or vitamin B_{12}. Blood transfusion alone will not induce haematological remission, as demonstrated by subsequent fall in haemoglobin value and a secondary response to vitamin-B_{12} therapy in 5 cases. The satisfactory response to folic-acid administration in this series confirms the results reported by Walt *et al.* (1957). The present series, however, demonstrates that the anaemia responds equally well to the administration of intramuscular vitamin B_{12}.

Malnourished children may be deficient in both vitamin B_{12} and folic acid, but owing to their nutritional state and slowing of their rate of growth, they may not show megaloblastic anaemia. It is suggested that some additional factor, possibly infection, is required to precipitate these marrow changes.

SUMMARY

The clinical and haematological features of 45 Bantu infants with megaloblastic anaemia are presented.

The association with malnutrition and infection is striking.

This form of megaloblastic anaemia in infancy responds to therapy with intramuscular vitamin B_{12} as well as to the administration of oral folic acid.

We wish to thank Prof. J. F. Murray, Drs. R. Cassel, H. B. W. Greig, E. Kahn and S. Wayburne for their help, the Director, South African Institute for Medical Research, for providing facilities for this study, and the Superintendent, Baragwanath Hospital, for permission to publish.

REFERENCES

Adams, E. B. (1954): Brit. Med. J., 1, 537.
Altmann, A. and Murray, J. F. (1948): S. Afr. M. Med. Sci., 13, 91.
Amato, M. (1947): Riv. Clin. Pediat., 45, 53.
Diamond, L. in Mitchell, A. G. and Nelson, W. E., ed. (1954): *Textbook Pediatrics*, 6th ed., p. 960. Philadelphia: Saunders.
Gerbasi, M. (1958): Proc. of 7th Int. Congr. of Haematology, Rome, September 1958.
Harvard School of Public Health. *In* Mitchell and Nelson (1954): *Op. cit.*, p. 54.
Kahn, E. (1959): Amer. J. Clin. Nutr. (in press).
Luhby, A. L. and Doan, C. A. (1949): Proc. Conf. Preservation of Formed Elements and of Proteins of the Blood, Harvard Medical School, Boston.
McPherson, A. Z., Jonsson, U. and Rundles, R. W. (1949): J. Pediat., 34, 539.
Pecorella, F., Burgio, G. R. and Aversa, T. (1947): Riv. Clin. Paediat., 45, 65.
Sturgeon, P. and Carpenter, G. (1950): Blood, 5, 458.
Walt, F., Holman, S. and Hendrickse, R. G. (1956): Brit. Med. J., 1, 1199.
Walt, F., Holman, S. and Naidoo, P. (1957): *Ibid.*, 2, 1464.
Zuelzer, W. W. and Rutzky, J. (1953): Advanc. Pediat., 6, 243.

DIE SINDROOM VAN LIGGINGSHIPOTENSIE VAN SWANGERSKAP (SUPINE HYPOTENSIVE SYNDROME)

G. H. R. HOLTZHAUSEN, M.B., CH.B. (PRET.), *Departement Verloskunde en Vrouesiektes, Universiteit van Pretoria*

In 1950 het 'n jong multigravida by die voorgeboorte-kliniek van die Universiteit van Texas plotseling 'n skokbeeld ontwikkel tydens die ondersoek. Sy het gekla oor 'n skielike regter-onderbuikpyn, erg aan die sweet gegaan, en bleek geword. Haar polsspoed het gestyg na 160 per minuut, terwyl die bloeddruk nie bepaal kon word nie. Sy is onmiddellik toegelaat en op haar rug vervoer na die kraamsaal. Daar was haar toestand onveranderd en 'n diagnose van uterusruptuur is gemaak. Laparotomie is inderhaas uitgevoer, maar 'n normale voltydse uterus is gevind en sy is van 'n lewendige kind verlos.[1]

In 1951 het McRoberts[2] 6 gevalle beskryf en voorgestel dat die toestand te wyte kon wees aan obstruksie van die buikvene in die liggende posisie. Kort daarna het De Regende[3] voorgestel dat die toestand die gevolg mag wees van 'n refleks vatverwyding deur senuweestimulasie van strukture agter die uterus.[3] Stead[4] het in 1952 die twee menings saamgevat en die toestand toegeskryf aan: (1) sensoriese stimulasie in die buik, en (2) obstruksie van bloedvloei vanaf die onderste ledemate.

Sedertdien is daar nie baie gevalle beskryf nie, ten spyte van die feit dat sommige ondersoekers die insidensie van hierdie sindroom in een of ander graad op 11% stel.[1] In die literatuur kon nie meer as 20 gevalle gevind word nie. Howard *et al.*[1] het aan die toestand die naam ‚Supine hypotensive syndrome' gegee.

Aangespoor deur die eerste paar gevalle het dié werkers oorgegaan tot diereksperimente met die volgende interessante bevindinge:[1]

1. Faradiese stimulasie van die ganglion coeliacum veroorsaak *hipertensie*.

2. Onderbinding van die vena cava inferior onder die niervate by *nie-swanger* tewe het geen slegte gevolge nie.

3. By *swanger* tewe, egter, veroorsaak onderbinding van die vena cava inferior onder die niervate 'n dramatiese daling van die bloeddruk, wat direk eweredig is met die duur van swangerskap.

4. By 5 honde was daar loslating van 22 uit 24 plasentas.

Omdat obstruksie van die vena cava inferior noodwendig 'n styging van druk in die femorale vene teweegbring, is daar by 25 swanger en 5 nie-swanger vrouens druklesings in die femorale venes geneem. Dit is gevind dat die veranderinge in albei bene met sit en staan dieselfde in swanger as by nie-swanger pasiënte is. In die liggende posisie, egter, het die druk by swanger pasiënte gestyg tot tweekeer die waarde by nie-swanger pasiënte.

By 2 pasiënte wat keiserhisterektomies moes ondergaan, is die vena cava inferior gedurende operasie 5 minute lank toegedruk.[5] Albei pasiënte het binne 1 minuut 'n definitiewe daling van bloeddruk getoon; ook het die uterus dadelik stuwing getoon met blou opgehewe areas oor die plasentale gebiede. Na lewende kinders verwyder is, is by albei plasentas retroplasentale bloedings gevind. Dit was die eerste keer dat eksperimentele loslating van die plasenta by mense teweeggebring is.

Gevalverslag

'n 25-jarige Bantoe vrou, S.M., is op 4 Junie 1959 by die voorgeboorte-kliniek van die Holy Cross-Inrigting te Lady Selborne, Pretoria, ondersoek. Dit was haar derde besoek aan die kliniek tydens die huidige swangerskap.

Sy het 3 normale bevallings gehad en was gesond tydens die swangerskappe. Daar was geen punte van belang in die algemene geskiedenis nie. Wat die huidige swangerskap betref, het die laaste maandstonde op 21 September 1958 voorgekom en die verwagte datum van bevalling was gevolglik 28 Junie 1959. Tot op dié stadium was daar geen afwykings nie.

Nadat die pasiënt ongeveer 7 minute lank op haar rug op die ondersoekbank gelê het, het sy begin kla oor vae buikpyne wat omstrek na haar rug. Aangesien daar geen duidelike sametrekkings van die uterus was nie, is geen ag op die buikpyne geslaan nie. Die polsspoed was 100/minuut. Na 5 minute is gemerk dat die pasiënt 'n verwilderde gesigsuitdrukking het, sweetpêrels het op haar voorhoof en om haar mond uitgeslaan, en haar vel het 'n grysvaal kleur ontwikkel. Sy het gekla oor erge hoofpyn en 'n koue gevoel in albei bene.

By ondersoek kon geen radiale polse waargeneem word nie, en geen bloeddruklesing kon met die sfigmomanometer verkry word nie. Die fetale hartspoed was 160/minuut.

Daar is besluit op spoedtoelating met die oog op 'n moontlike uterusruptuur. Sy is oorgetel op 'n stootwaentjie en na die kraamsaal *op haar sy* vervoer, waar sy weer op die kraambed op haar rug geplaas en ten volle ondersoek is. Die radiale polse was nou voelbaar teen 160/minuut en die bloeddruk bepaalbaar by 80/60 mm. Hg. Haar algemene voorkoms was ook beter. 'n Fetus van 36 weke grootte in die L.O.A.-posisie was voelbaar met die kop vry beweegbaar bokant die bekkenrand. Die fetale hart het gereeld geklop teen 'n spoed van 150/minuut. 'n Hemoglobienbepaling was 60% Haldane; 'n katetermonster urien het geen afwyking getoon nie. 'n Algemene ondersoek was negatief.

Na 15 minute op haar rug het sy weer begin kla oor buikpyn en 'n halwe koppie roeskleurige braaksel opgebring. Weereens was geen pols voelbaar en geen bloeddruk te bepaal nie.

Op dié stadium het die pasiënt self op haar sy gedraai, waarna die toestand dadelik verbeter het. Die pols was weer voelbaar, alhoewel vinnig, en die bloeddruk 100/80 mm. Hg. Fetale hartgeluide was ook normaal.

Daarna is sy aangemoedig om op een of ander sy te lê en elke uur is moederlike pols- en bloeddruklesings, sowel as fetale polsspoedlesings aangeteken. Daar het geen verdere aanvalle ingetree nie, en geen aanvalle kon uitgelok word deur haar gedurende die volgende 3 dae herhaaldelik op haar rug te laat draai nie.

Nadat 'n infusie van 500 c.c. gepakte rooibloedselle vir die anemie, aan haar toegedien is, is sy op 7 Junie 1959 ontslaan in goeie gesondheid.

Die pasiënt is weer op die aand van 1 Julie 1959 in die eerste stadium van baring toegelaat nadat die vliese om 5 nm. geruptuur het. By ondersoek om 8.20 nm. is die volgende gevind: Polsspoed 73/minuut, temperatuur 97·6° F, en bloeddruk (in die laterale posisie) 105/75 mm. Hg. Ondersoek van die hart het 'n sagte sistoliese geruis by die hartbasis, opgelewer. Elektrokardiografiese ondersoek het geen afwyking getoon nie.

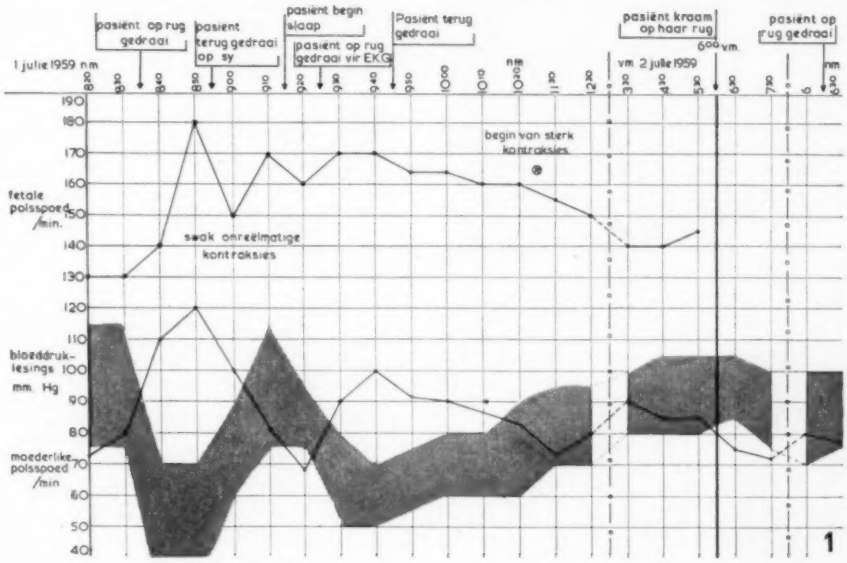
Met betasting van die buik was 'n voltydse fetus, in die R.O.A.-posisie, en in goeie fleksie, voelbaar. Die kop was nie ingedaal nie. Die fetale hartspoed was 130/minuut. By vaginale ondersoek is vasgestel dat die serviks gedeeltelik opgeneem is, maar nie ontsluit is nie.

Hierna is die pasiënt op haar rug gedraai en die bloeddruk, polsspoed, en fetale hartspoed is met tussenposes aangeteken.

In die bygaande afbeelding kan die verloop van kraam gevolg word. Die variasies van die bloeddruk, polssnelheid en fetale hartspoed wat plaasgevind het met veranderinge van posisie kan gesien word. (Afb. 1.)

Om 6 vm. op 2 Julie is sy spontaan van 'n normale dogtertjie verlos. Die kind het kort na geboorte begin skree en 'n gesonde kleur gehad. Die gewig van die kind was 7½ pd. Die plasenta was normaal en daar was geen tekens van retroplasentale bloeding nie. Alhoewel die verlossing in die litotomie posisie plaasgevind het, is geen noemenswaardige veranderinge van die bloeddruk voor, tendens, of na die bevalling opgemerk nie (Afb. 1). Twaalf uur na kraam is die bloeddruk en polsspoedlesings, sowel as 'n kardiografiese ondersoek, herhaal, maar geen afwykings is gevind nie.

Die pasiënt het 'n normale puerperium deurgemaak en sy en die baba is op die 7de dag ontslaan.



Afb. 1

BESPREKING

Die sindroom van liggingshipotensie van swangerskap is 'n kliniese toestand waar die bloeddruk daal wanneer die pasiënt op haar rug lê. In sommige gevalle is daar slegs 'n geringe verbygaande daling; in andere weer is dit so erg dat skok ontstaan. Daarby kom die volgende kenmerke:

1. Die toestand kom slegs laat in swangerskap of vroeg in baring voor, maar nie na kraam nie. Die vroegste geval wat beskryf is, het op 27 weke van swangerskap voorgekom.

2. Dit word verlig deur òf te sit, te staan, òf op die sy te draai. Alle gevalle het spontaan herstel, onmiddellik nadat 'n ander posisie ingeneem is. Waar daar *tydens 'n episode* weer op die rug gedraai word, daal die bloeddruk weer.

3. Die objektiewe skokbeeld word voorafgegaan deur subjektiewe gewaarwordings soos bv. ,'n floute', ,'n koue gevoel' of ,'n gevoel van angs'. Pyn word net in sekere gevalle ondervind en wel in die bene, onderbuik, of rug.

4. 'n Minimum-periode van 3-10 minute in die dorsale posisie is nodig om die sindroom aan te bring.

5. Na aanleiding van 'n identiese geval wat 2 maande vantevore in dieselfde inrigting as 'n geval van uterusruptuur gediagnoseer is, kan nog 'n kenmerk bygevoeg word, nl. dat die sindroom net op sekere tye in 'n besondere pasiënt intree.

Daar word veronderstel dat wanneer 'n sagte nie-sametrekkende uterus agteroor val, die vena cava inferior byna totaal afgesluit word. Die veneuse terugvoer na die regterhartkamers daal soveel dat dit die kardiale omset verminder en hipotensie veroorsaak. Terselfdertyd is daar 'n bloedophoping in die venes onderkant die obstruksie. As die uterusdrukking op die vena cava verlig word deur òf regop te sit òf te draai, òf as gevolg van 'n sametrekking van die uterus, word die obstruksie opgehef.

Die kliniese belang van die toestand lê daarin dat dit 'n akute skokbeeld en selfs uterusruptuur kan naboots met die gevaar van 'n onnodige operasie. Die moontlike rol wat die sindroom van liggingshipotensie in die veroorsaking van vroeë loslating van die plasenta en fetale hipoksie speel, is reeds genoem.

Twee vrae moet nog beantwoord word, nl.: (1) Waarom kom die sindroom net by 11% van vroue voor, en by hulle net op sekere tye; en (2) waarom volg hipotensie nie op onderbinding van die vena cava by nie-swanger honde nie.

Wat die eerste vraag betref, is dit moontlik dat deur anatomiese variasies van die lumbale werwels die vena cava nie by alle mense beskerm is nie. Ook is dit moontlik dat die konsistensie en vorm van die uterus, sowel as die intra-abdominale druk, in dieselfde persoon varieer.

Die rede waarom akute hipotensie nie by onderbinding in nie-swanger diere voorkom nie, is nie duidelik nie. Dit is algemeen bekend dat die totale bloedvolume naby voltyd byna 40% bo normaal is. Derhalwe word 'n relatief groter volume bloed van die hart weerhou as in nie-swanger diere. Dit alleen sou moontlik genoeg wees om die hipotensie te verklaar.

OPSOMMING

'n Kort oorsig oor die geskiedenis van die sindroom van liggingshipotensie van swangerskap word verstrek, en sekere eksperimentele bevindinge word aangehaal. 'n Geval van die sindroom word beskryf en 'n verdere geval gemeld. Sekere aspekte van die patogenese en punte van kliniese belang word bespreek.

Die aandag word daarop gevestig dat die sindroom nie herhaaldelik by 'n besondere pasiënt uitgelok kan word nie. Die gevaar van foutiewe diagnose en gevolglike onnodige operasie word beklemtoon. Die rol wat die obstruksie mag speel in abruptio placentae word genoem.

SUMMARY

The history of the supine hypotensive syndrome is briefly reviewed, and certain experimental findings are quoted. A case exhibiting the syndrome is described in detail and reference is made to another case. Certain aspects of the pathogenesis and clinical picture are discussed.

Attention is drawn to the fact that the syndrome cannot be elicited repeatedly in the same patient. The danger of incorrect diagnosis resulting in unnecessary operation is stressed. The possible role of obstruction of the vena cava in abruptio placentae is mentioned.

Prof. F. G. Geldenhuys word bedank vir sy raad by die opstel van die verslag; ook dr. Jean Marais vir sy hulp met die hantering van die pasiënt.

VERWYSINGS

1. Howard, B. N., Goodson, J. H. en Mengert, W. F. (1953): Obstet. and Gynec., **1**, 371.
2. McRoberts, W. A. Jr. (1951): Amer. J. Obstet. Gynec., **62**, 627.
3. De Regende, J. M. (1952): *Ibid.*, **64**, 709.
4. Stead, E. A. Jr. (1952): Amer. J. Med., **13**, 387.
5. Smith, K. en Fields, H. (1958): Obstet. and Gynec., **12**, 369.

ASSOCIATION MEDALS

The following citations were read at the Adjourned Annual General Meeting of the Medical Association of South Africa held at East London on 28 September 1959, when the Association's Gold Medal for Distinguished Service to the Profession was presented to Dr. T. Shadick Higgins; the Association's Silver Medal for Distinguished Service to Medical Science and Humanity was presented to Dr. J. H. S. Gear; and the Association's Bronze Medals for Meritorius Service were presented to Drs. Heymann, Robertson and Wagner.

DR. T. SHADICK HIGGINS

Dr. Tom Shadick Higgins received his education at University College, London, and University College Hospital. He obtained the degree of B.Sc. (Lond.) (honours in physiology) in 1905 and the conjoint diploma of M.R.C.S. (Eng.), L.R.C.P. (Lond.) in 1907, and the degree of M.B., B.S. (Lond.) in the same year. He proceeded to take the D.P.H. (Camb.) in 1908 and the degree of M.D. (Lond.) in 1911. He became a Fellow of the Royal Sanitary Institute in 1923, later becoming a Vice-president, and in 1937 obtained the M.R.C.P. (Lond.). While at University College he gained many academic awards, including the Liston Gold Medal in Surgery.

Dr. Shadick Higgins

Before coming to South Africa he was Assistant (and Deputy) Medical Officer of Health to the City of Birmingham from 1909 to 1913 and then became Medical Officer of Health to the Metropolitan Borough of St. Pancras, London, from 1913 to 1923.

In 1923 he was appointed Medical Officer of Health to the City of Cape Town and Professor of Public Health at the University of Cape Town, which posts he held until his retirement in 1944. He acted as Medical Director of Social Services to the City of Cape Town from 1944 to 1946.

Soon after his arrival in Cape Town, Dr. Shadick Higgins, who had been a member of the British Medical Association since 1910, identified himself wholeheartedly with the work of the Medical Association of South Africa. As a member of the Cape Western Branch he served on many Committees, notably the Parliamentary and Ethical Committees, being Chairman of the latter over a lengthy period. He was on the Branch Council for more than 25 years and was President of the Branch in 1930.

He was elected a member of Federal Council in 1947 and served two periods of 3 years as such. For 5 years he represented the Association on the Central Hospitals Advisory Committee of the Cape Provincial Administration. From 1944 to 1949 he was an elected member of the South African Medical and Dental Council and for 4 years its representative on the South African Nursing Council.

He served on the Committee of Enquiry on Groote Schuur Hospital in 1948-49 and was a member of the National Housing and Planning Commission in 1945-48. He was formerly Chairman of many public bodies, notably the South African Branch Council and Board of Examiners of the Royal Sanitary Institute, the Cape Province Tuberculosis Council, the Cape Mental Health Society and the Cape Nursery Schools Association.

As Medical Officer of Health for the City of Cape Town he was responsible for the building up and administration of the City Health Department, which, on its clinical side, included a full-time staff of 16 medical officers, a dentist, a veterinary officer as well as many part-time medical officers. Besides 20 health centres, the Department included hospitals providing some 700 beds for tuberculosis and infectious diseases.

In 1953 Dr. Shadick Higgins was appointed Editor of the *South African Medical Journal*, which post he held with great distinction until the end of 1958. At an age when most men would have welcomed the leisure of retirement, and during a period of peculiar difficulty in the affairs of the Association, he displayed outstanding tact and edited the *Journal* with conspicuous ability and dignity.

Dr. Shadick Higgins already holds the Bronze Medal of the Association, awarded to him in 1952. Notwithstanding this honour and as a mark of appreciation of his long and valuable services to the public and to the medical profession, and in particular as tangible recognition of his loyal and devoted membership of the Association and all that he has achieved in promoting its interests, the Association is proud to present to him its Gold Medal for Distinguished Service to the profession.

DR. JAMES GEAR

Dr. James Gear received his education at the Germiston Central School; St. John's College, Johannesburg; and the University of the Witwatersrand. Here he obtained the degree of Bachelor of Science and in 1929 qualified to the degree of Bachelor of Medicine and Bachelor of Surgery. He was awarded the Bronze Medal of the Southern Transvaal Branch of the Medical Association as the most outstanding graduate of his year.

Dr. Gear

Portrait Moderne by Jane Plotz

His resident posts were held in the Johannesburg Hospital, following which he was appointed to the staff of the South African Institute for Medical Research.

In 1932 he was awarded a Union Postgraduate Scholarship and went to London to study pathology, bacteriology and tropical medicine, obtaining the Diplomas in Tropical Medicine and Hygiene, Public Health, and Bacteriology.

On his return he rejoined the Institute staff in Johannesburg and began his life work in pathology, bacteriology and tropical medicine. He soon made valuable contributions to the understanding of the rickettsial diseases by his work on African tick-typhus.

He was appointed to the post of Lecturer in Tropical Medicine at the University of the Witwatersrand to both undergraduates and postgraduates.

On the outbreak of War he joined the South African Medical Corps, being posted to the Laboratory Services Section. He conducted several courses in tropical medicine for the medical officers under training at the Sonderwater Base Camp. During this time he was associated with the first attempts at controlling the spread of meningitis in military camps in South Africa.

He was selected during the war to go to the United States of America for training in virus vaccines, particularly those for typhus and yellow fever, spending some months at the Rockefeller Foundation.

He then set up the Yellow Fever and Typhus Fever Vaccine Sections at the South African Institute for Medical Research, producing vaccines which were used extensively for civilian and military needs in Africa.

On demobilization he returned to his post on the staff of the South African Institute for Medical Research, continuing his work in the fields of virology, tropical diseases and immunology, and in 1949 he was awarded the Chalmers Gold Medal of the Royal Society of Tropical Medicine and Hygiene for outstanding services to tropical medicine. Poliomyelitis soon became a special interest and when the Poliomyelitis Foundation was set up he was appointed as its first Director. Under his leadership a polio vaccine of the Salk type was developed, proved to be efficacious and widely used throughout Southern Africa. He made fundamental contributions to some of the immunological problems of poliomyelitis. This work received recognition in the United States of America by an invitation from the American College of Physicians for him to deliver the James D. Bruce Memorial Lecture in 1952 at its 33rd Annual Session.

The virus laboratories under his direction have extended their activities into many aspects of this important subject. Techniques of isolation of the viruses and the problems of vaccine production are under continual revision. Fundamental work in the isolation of the Coxsackie and trachoma viruses has recently attracted widespread interest.

He serves, or has served, on several Expert Committees of the World Health Organization.

He is a member of the Interim Committee of the International Congress of Tropical Medicine and Malaria.

In South Africa he is a member of the Medical Research Committee of the Council for Scientific and Industrial Research and serves on the Sectional Committees concerned with bilharzia and the arthropod-borne virus diseases.

His investigations have covered the diseases of malaria, sleeping sickness, onyalai, Q fever, tick-typhus, epidemic and endemic typhus, and Rift Valley fever. Virus diseases have always been his special interest and he has contributed greatly to world knowledge by his isolation of certain of the viruses, most recently that of trachoma, and by his outstanding work on the virus of poliomyelitis, the Coxsackie virus and the echo virus.

He was one of the first to explore the problem of auto-immune disease, and many of his predictions regarding the pathogenesis of clinical syndromes in this field have been substantiated.

He has recently been appointed to the post of Director of the South African Institute for Medical Research and will assume duty at the end of this year.

The Medical Association of South Africa recognizes the valuable contributions of one of South Africa's great scientists to the alleviation of human suffering and the advancement of medical knowledge, and wishes to honour him with its Silver Medal for Distinguished Service to Medical Science and Humanity.

DR. SEYMOUR HEYMANN

Dr. Seymour Heymann graduated as Bachelor of Science in 1923 and as Bachelor of Medicine and Bachelor of Surgery at the University of the Witwatersrand in 1927. While at University Dr. Heymann took a prominent part in student affairs, being one time President of the Students' Medical Society and President of the Students' Representative Council. He played an active role in the founding of the National Union of South African Students and was Vice-president of this organization in 1926-27.

Dr. Seymour Heymann

After postgraduate training in paediatrics in Britain and on the Continent, Dr. Heymann returned to South Africa in 1931, joining the late Dr. E. P. Baumann in private practice. He was appointed Honorary Registrar to the Transvaal Memorial Hospital for Children in the same year and has served on the staff of this hospital since that date, holding the post of Chief Paediatrician and that of Head of the Sub-department of Paediatrics at the University of the Witwatersrand, since 1949. In addition, Dr. Heymann for many years held the appointments of Honorary Consulting Paediatrician to the Far East Rand and the Krugersdorp Hospitals. Since 1936 he has been Honorary Medical Adviser to the Child Welfare Society in Johannesburg.

Dr. Heymann has always been an ardent worker for the Medical Association which he joined in 1930. He has been a member of the Southern Transvaal Branch Council almost continuously since 1934 and served on its Executive for a number of years, holding in turn the office of Honorary Treasurer in 1950 and 1951, Vice-president in 1952 and President in 1953. At one time or another he has been a member of most of the Sub-committees of the Branch Council and represented the Branch on the Juvenile Affairs Board and the South African Blood Transfusion Service for many years.

Dr. Heymann was first elected to the Federal Council for the period 1945 to 1948, and since re-election in 1951 has continued in service as an active member of Council and of several of its sub-committees. In addition, he played a part in the founding of the College of Physicians, Surgeons and Gynaecologists of South Africa, being a member of the Steering Committee throughout its existence. In 1956 he was elected to the first Council of the College, and serves on its Examinations and Credentials Committee. He took a prominent part in establishing the South African Paediatric Association and has been a member of its Executive since its formation in 1947, occupying the post of Secretary for 2 years and Chairman for a similar period. He was President of the first South African Paediatric Congress in Durban in 1953. The formation of the Medical Graduate Association in Johannesburg was in no small measure due to his initiative and he was President of this organization in 1937-38.

He served as a respresentative of the Medical Association on the National Council for Child Welfare for many years.

In 1952 Dr. Heymann was awarded the Diploma and Medal of the Order of Merit by the International Union for Child Welfare, Geneva, in recognition of 'outstanding and devoted service in the cause of the child'.

Apart from his contribution to the cause of social welfare and of academic advancement in his own sphere of medical practice, Dr. Heymann has rendered tireless and devoted service to the medical profession. The Association wishes to show its appreciation by awarding him its Bronze Medal for Meritorious Service.

Dr. Lewis S. Robertson

Dr. Lewis S. Robertson commenced his medical studies at the South African College, Cape Town, in 1911 and proceeded to Aberdeen University 2 years later.

With the outbreak of the 1914-1918 War, he volunteered for military service and obtained a commission in the Royal Field Artillery. He was severely wounded at the Battle of Arras in May 1917 and was under treatment in military hospitals for over a year before being finally discharged unfit for further military service. He graduated at Aberdeen University in July 1919, M.B., Ch.B. He obtained the Diploma of Public Health in Manchester in 1920 and joined the British Medical Association that year.

Dr. Robertson

On his return to South Africa in 1921, he was transferred to the Witwatersrand Branch of the British Medical Association. After serving as Resident Medical Officer at the Johannesburg Hospital from 1921 to 1922, he went into private practice in Pretoria. In 1924 he was elected Honorary Treasurer of the Pretoria Branch of the British Medical Association, a post he held for 2 years, and in 1926 he became Honorary Secretary of the Pretoria Branch, in which capacity he served for 5 years. In 1932 he became Vice-president and in 1933 President of the Northern Transvaal Branch. Dr. Robertson served several years on Federal Council as a representative of the Northern Transvaal Branch of the Association.

On the occasion of the visit of the late Dr. Alfred Cox, Secretary of the British Medical Association, to South Africa in 1926, Dr. Robertson served on the Committee to negotiate the amalgamation of the Branches of the British Medical Association in South Africa with the South African Medical Association. As a result of this agreement, the present Medical Association of South Africa emerged.

Dr. Robertson transferred to the Southern Transvaal Branch in March 1936, and has taken an active part in the affairs of the Branch. He has served on Branch Council for about 10 years—as a member of Council, Honorary Treasurer, Vice-president and President in 1955. He has also served on Federal Council for 4 years as a representative of the Southern Transvaal Branch.

He served as Assistant Organizing Secretary for the 1926 Medical Congress, and Organizing Secretary for the 1934 Medical Congress, both held in Pretoria. He was Honorary Treasurer for the 1952 Medical Congress held in Johannesburg.

Dr. Robertson has been intimately associated with hospitals for a very long period. He served as Honorary Physician on the staff of the Pretoria Hospital for 2 years before his appointment as Medical Superintendent of that Institution in 1928. During the period that he served as Medical Superintendent, the new Pretoria Hospital was built, equipped and occupied, and he was largely responsible for the organization of the new hospital.

In 1936 he was appointed Medical Superintendent to the Chamber of Mines Hospital while under construction and was in charge of the hospital when it was occupied until the outbreak of the Second World War. In 1924 Dr. Robertson served with the rank of Captain in the A.C.F.; in 1928 he was promoted to the rank of Major, became Lieutenant Colonel in 1935 and was promoted to the rank of Colonel in 1941. He was appointed Commanding Officer of the Military Hospital, Voortrekkerhoogte, a position he held for 4 years, during which period there was phenomenal expansion of the Institution.

Dr. Robertson has been a member of the Johannesburg Hospital Board since June 1950 and has served as Chairman of the House Committee of the Hospital for 5½ years. He was elected Vice-chairman in August 1955, and Chairman of the Johannesburg Hospital Board in January 1956.

He has served in a voluntary capacity on Committees of the South African Red Cross Society for over 35 years and was National President during the years 1950 and 1951. He still devotes a great deal of time in the service of the Society.

He is a foundation member of the National Cancer Association and has been its President since March 1952.

Dr Robertson has served his profession and the Association with zeal and enthusiasm. He has never spared himself. For these reasons the Association takes pleasure in awarding him its Bronze Medal for Meritorious Service.

Dr. P. F. H. Wagner

Dr. P. F. H. Wagner commenced his medical studies at the Schoio of Mines and Technology at Witwatersrand where he spent his first year. His second year was spent at the University of Cape Town and he then proceeded to Dublin where he qualified M.B., B.Ch., B.A.O. in 1923. He commenced practice as a general practitioner in Aliwal North in 1924 and was at the time a member of the British Medical Association. He joined the Medical Association of South Africa on its inception in 1926 and was appointed Secretary to the Aliwal North Division of the Border Branch.

Dr. Wagner

In 1928 Aliwal North became the centre of the new Orange River Branch, largely due to his efforts. Dr. Wagner was its first President and was its Federal Council representative until the end of 1932. He returned to Dublin for postgraduate study in 1933 and obtained the M.D. degree.

He commenced general practice in East London in the same year and shortly afterwards was appointed Secretary of the Border Branch, a post which he held for 7 years. He was elected to be Federal Council representative soon after and served until 1951, when he resigned, having been elected to the South African Medical and Dental Council in 1948.

During his last 3 years on Federal Council, he was a member of the Executive Committee. Dr. Wagner has been President of the Border Branch of the Association on two occasions—1944 and 1952—an office which he filled with dignity.

Dr. Wagner has been a member of the South African Medical and Dental Council for the last 10 years and is still an active member of both that Council and the Border Branch.

After serving as President-elect of the Association, he is now its President.

In recognition of his service to the Association and the profession, the Association wishes to honour him with the award of its Bronze Medal for Meritorious Service.

MINUTES OF MEETING OF FEDERAL COUNCIL HELD IN EAST LONDON ON 24, 25 AND 26 SEPTEMBER 1959

Following are the Minutes of a Meeting of the Federal Council of the Medical Association of South Africa, held in St. Saviour's Hall, St. Peter's Road, East London, on 24, 25 and 26 September 1959:

Present:

Border Branch: Drs. L. L. Alexander, J. K. McCabe, R. Schaffer.

Cape Midlands Branch: Drs. L. E. Lane, M. A. Robertson.

Cape Western Branch: Dr. J. C. Coetzee, Mr. J. A. Currie, Dr. M. Helman, Mr. J. D. Joubert, Mr. J. A. S. Marr, Drs. P. F. Oates, A. G. Paterson, F. W. F. Purcell, A. W. S. Sichel, L. Slabbert.

East Rand Branch: Mr. D. E. Mackenzie, Drs. M. Segal, E. W. Turton.

Griqualand West Branch: Mr. N. Kretzmar.

Natal Coastal Branch: Drs. R. W. S. Cheetham, S. Disler, Mr. A. G. Sweetapple, Dr. F. Walt.

Natal Inland Branch: Mr. B. A. Armitage, Dr. T. H. Whitsitt.

Northern Transvaal Branch: Dr. J. H. Casewell, Mr. J. G. A. du Toit, Drs. C. M. Grundlingh, W. H. Lawrance, J. H. Struthers, W. Waks.

O.F.S. and Basutoland Branch: Drs. D. Serfontein, R. Theron, G. F. C. Troskie.

Southern Transvaal Branch: Drs. C. Adler, A. L. Agranat, Mr. W. Girdwood, Dr. S. C. Heymann, Mr. C. T. Moller, Drs. H. Penn, T. Radloff, Lewis S. Robertson, M. Shapiro, S. Spiro.

South-West Africa Branch: Dr. W. H. G. Kuschke.

Transkei Branch: Dr. E. R. Louw.

Vaal River Branch: Dr. W. Chapman.

In Attendance: Drs. A. H. Tonkin (Secretary), L. M. Marchand (Associate Secretary), P. D. Combrink (Assistant Secretary, Transvaal).

Observer: Dr. A. P. Blignault (Editor).

THURSDAY 24 SEPTEMBER

The Chairman of Council, Dr. J. H. Struthers, declared the Meeting to be duly constituted at 9.40 a.m. He welcomed members to the Meeting.

1. *Notice Convening the Meeting*, published in the *Journal* of 15 August 1959, was taken as read.

2. *Proxies and Apologies:* The Secretary announced Proxies as follows: Mr. J. A. Currie to act for Dr. A. Landau, Dr. M. Shapiro to act for Dr. J. Gluckman, Mr. W. Girdwood to act for Dr. T. Schneider, Dr. F. Walt to act for Dr. N. A. Rossiter, Dr. R. W. S. Cheetham to act for Dr. A. Broomberg, Dr. A. G. Paterson to act for Dr. J. H. L. Shapiro and Dr. A. A. Zabow, Dr. S. Spiro to act for Dr. L. O. Vercueil.

Apologies for absence were noted from Drs. A. Landau, L. R. L. Solomon, A. B. Taylor and L. O. Vercueil. It was further noted that Dr. C. Adler would arrive during the afternoon.

3. *Introduction of New Members:* The Chairman asked that senior members of Branches introduce new members of Council. Mr. Sweetapple introduced Drs. Cheetham and Walt; Mr. Girdwood introduced Dr. Spiro.

Addressing Council, the Chairman stated that 3 members of Federal Council were also members of the South African Medical and Dental Council which was in session in East London at the same time. He said that he and the President of Medical Council had come to an arrangement whereby generally it would be possible for those 3 members to attend Medical Council meetings in the mornings and Federal Council Meetings in the afternoons, on the first day particularly.

He drew attention to a letter of invitation from the Secretary of Congress in regard to a race meeting to be held on the Saturday afternoon. This was noted.

The Chairman went on to draw attention to the length of the Agenda and indicated that it would probably be necessary to have 2 evening sessions in order that the Meeting might end by lunchtime on Saturday.

4. *Minutes* of Meeting held in Johannesburg on 8, 9 and 10 April 1959, were presented. It was proposed by Mr. Armitage, seconded by Dr. L. S. Robertson, that the Minutes be confirmed.

Dr. Shapiro suggested that Minute 120 be expunged from the record. This suggestion was not accepted by the Chairman, and Dr. Shapiro said that he would give formal notice of motion to rescind the resolution at the next Meeting of the Council.

The confirmation of the Minutes was then put to the vote and was *Carried*. The Minutes were signed.

GENERAL MATTERS ARISING OUT OF THE MINUTES

5. *Night Sessions at Federal Council Meetings:* Notice of motion had been given at the last Meeting over the hands of Dr. L. S. Robertson and Dr. Agranat, reading: 'That on the opening day of a Meeting of Federal Council consideration be given to holding a night session on the first day.'

Dr. Robertson proposed accordingly, seconded by Dr. Agranat, and after short discussion the motion was put to the vote and *Carried Nem. Con.*

6. *Subscriptions to the Association:* It was reported that at the last Meeting of Council it had been agreed that while the subscription for ordinary members would be £4 4s. 0d. per annum, that for interns and practitioners in the first 2 years of post-intern practice would be £2 2s. 0d. It had also been agreed that the subscription payable by members over the age of 65 who had retired from active practice should be £2 2s. 0d. per annum. In accordance with By-law 61 (*b*) it was necessary that this decision be confirmed at the present Meeting by not less than a three-fourths majority.

On being put to the vote, it was *Resolved Nem. Con.* that the resolution taken at the last Meeting in this regard be *Confirmed.*

7. *Amendment of Articles of Association:* Notice of motion had been given over the names of Dr. Sichel and Dr. Troskie that Articles 23 (*b*) and 25 be amended as follows:

That Article 23 (*b*) be amended to read: 'The reception of such addresses and especially the address to the Association of the President as the Council shall have arranged to be received at such Meeting.'

That in Article 25 the words 'The Council shall at least once a year arrange meetings or conferences . . . ' be amended to read: 'The Council shall from time to time arrange meetings or conferences . . . '.

The Chairman pointed out that it was necessary to amend these 2 Articles as proposed, in order to bring them into line with present custom. The Secretary stated that if the proposals were accepted by Council, it would be necessary to convene an Extraordinary General Meeting in order that they might be formally passed and thereafter communicated to the Registrar of Companies.

On being put to the vote, Council *Resolved* that the proposed amendments be approved and that the Secretary convene an Extraordinary General Meeting for the purpose of passing the amendments, and that they be thereafter communicated to the Registrar of Companies.

8. *Amendment of By-laws:* Notice of motion had been received regarding the amendment of 6 By-laws. They were as follows:

(i) That By-law 9 (*c*) be amended to read: 'In the case of husbands and wives residing together, both being members of the Association, the subscription payable by the wife shall be £2 2s. 0d. less than the normal subscription to the Association.' On being put to the vote, this was *Carried* with 4 dissentient votes.

(ii) That in By-law 30 the words 'in person or by proxy' be inserted after the words 'Except as hereinafter provided in this By-law, no business shall be transacted in any general meeting unless there be present a quorum of not less than 50 members.' Council *Resolved* accordingly.

(iii) That By-law 41 be amended so that the words 'The Council shall meet not less than twice a year and shall be presided over by the Chairman of Council . . . ' be altered to read: 'The Council shall meet at least once a year and shall be presided over by the Chairman of Council . . . '. The Secretary stated that the Executive Committee had agreed to recommend that a further amendment be accepted, that the following words be deleted: 'The Chairman shall have power, however, to decide that any meetings shall not be held if in his opinion there is not sufficient business of importance, and due notice of the postponement shall be sent to all members of the Council. It shall not, however, be competent to be postponed for 2 consecutive meetings.' Discussion followed, after which the proposal as amended by the Executive Committee was put to the

vote. Council *Resolved* accordingly by 30 votes to 11. Dr. Shapiro requested that his vote against the motion be recorded.

(iv) That By-law 55 be amended to read: 'The Executive Committee shall have the power to act on behalf of the Council in any matter placed before them, provided that such action is within the declared policy of the Association. Any action taken by this Committee shall have the same validity as if dealt with by the Council and shall be reported to the Council at its next Meeting.' Considerable discussion followed, during which several amendments were proposed. The Chairman refused to accept these and ruled that they constituted variations of principle. Finally the motion was put to the vote and was *Lost*, there being only 1 vote in its favour. Dr. Shapiro requested that the name of Dr. Theron be recorded as having been in favour of the motion.

(v) That the first portion of By-law 58 be amended to read: 'There shall be elected at the first Meeting of the Council following each triennial election a Head Office and Journal Committee which shall consist of the President, the Chairman, the Vice-chairman, the Honorary Treasurer and 5 members of Council, with power to coopt. The Head Office and Journal Committee shall have power . . .'. The Chairman pointed out that this proposal had been put forward in an attempt to bring the appointment of the Head Office and Journal Committee into line with the appointment of other Committees of the Council. As the By-law stood at present, the appointment of the Head Office and Journal Committee was automatic and out of the hands of Council. On being put to the vote, this motion was *Carried* with 1 dissentient vote.

(vi) That in By-law 32 (*b*) the words 'On a show of hands every member present in person or by proxy shall have one vote, and upon a poll every person present in person or by proxy shall have one vote' be altered to read: 'On a show of hands every member present in person or by proxyholder also present shall have one vote, and upon a poll every member present or by proxy shall have one vote.' After short discussion it was generally agreed that the By-law, as re-drafted, did not set out clearly the intention which was implied, and it was therefore *Agreed* that this should be re-drafted and submitted later as a notice of motion.

9. *Amendment of Standing Orders:* Notice of motion had been given at the last meeting to amend certain Standing Orders as follows:

(i) That Standing Order 1 be amended to read: 'Where a member of Council knows in advance that he will be absent from a Council Meeting, he shall inform his Branch Council which shall appoint a substitute to act for him. In case of emergency any member of Council may appoint a substitute from amongst the members of the Association to attend any one Meeting. The substitute shall present to the Secretary of Council a properly completed proxy form prior to the commencement of the Meeting. Such proxy shall carry with it all the rights and privileges to which a member of Council is entitled.' It was pointed out that the Standing Order as it stood at present was in conflict with By-law 38(*a*), and the suggested amendment would bring about conformity between the two. Council *Resolved* accordingly.

(ii) That Standing Orders 2 and 4 be amended by the insertion of the words 'of the Association' after the word 'Secretary' in the second line of Standing Order 2 and in the third line of Standing Order 4. It was stated that this amendment was proposed purely for the sake of clarity. Council *Resolved* that the amendment be made.

(iii) That Standing Order 11 be amended to read: 'The President and the Chairman shall be *ex officio* members of all Committees of the Council. The Chairman shall not preside at a Committee unless he is Chairman of that Committee.' It was pointed out that this amendment had been proposed in order to bring the Standing Order into line with By-law 59. Council *Resolved* that the amendment be made.

(iv) That Standing Order 15 be amended to read: 'Special meetings may be convened by the Chairman and shall be convened by him upon the written requisition of at least one-tenth of the members of Council. Such requisition must state clearly the purposes for which the meeting is to be convened.' It was stated that the Standing Order as set out at present was in conflict with By-law 43, and the proposed amendment would bring about conformity between the two. Council *Resolved* that the amendment be made.

(v) That Standing Order 16 be amended by the deletion of '30 (thirty)' in the fourth line, and the substitution therefor of '21 (twenty-one)'. It was pointed out that the amendment as proposed would bring the Standing Order into line with By-law 42 and the provisions of the Companies Act. Council *Resolved* that the amendment be made.

(vi) That Standing Order 22 be amended to read: 'No business shall be transacted at any Meeting of the Council unless 7 members are present in person representing at least 3 Branches. The quorum for a meeting of any Committee of the Council shall be 3 voting members unless otherwise directed by Federal Council in view of special circumstances.' An amendment was proposed that the word 'directed' be altered to 'determined'. Council *Resolved* that the amendment of the Standing Order, as proposed and as amended above, be made.

(vii) That Standing Order 51 be amended by the deletion of the word 'more' in the second line, and the substitution therefor of the word 'none'. It was pointed out that this amendment was necessary owing to a misprint having been made in the original printing of the Standing Orders. Council *Resolved* that the amendment be made.

(viii) That Standing Order 52 be amended to read: 'If an amendment be carried, it shall then be regarded as the substantive motion, and a further vote shall be taken on it as if it were an original motion.' It was pointed out that the proposed amendment would make the wording of the Standing Order clearer and more in conformity with the intention. Council *Resolved* that the amendment be made.

(ix) That Standing Order 60 be amended by the insertion after the word 'Minutes' at the top of page 8, of a sentence reading: 'If this request is made, the Chairman shall direct that a vote by poll be taken, i.e. by signed voting paper.' That at the end of this Standing Order a further sentence be added, reading: 'Proxy voting shall always be carried out by poll vote.' It was stated that the proposed amendments were in the interests of clarity. Council *Resolved* that the amendments be made.

(x) That in Standing Order 64 the word 'may' in the second line be amended to 'shall'. A further amendment was proposed that the words 'if they think fit' be deleted from the fourth line. Council *Resolved* that the proposed amendment, as amended above, be made.

(xi) That Standing Order 66 be amended by the addition of the words 'by poll vote'. Council *Resolved* that this amendment be made.

10. *Amendment of By-law 6 (c)—Life Membership:* Notice of motion had been given to amend By-law 6 (*c*) to read: 'Members who have served the Association continuously for at least 40 years shall become Life Members. The Branch concerned shall supply the necessary information to the Head Office of the Association.' It was stated that this amendment had been approved at the last Meeting of Council, and in terms of By-law 69 it had been submitted to all Branches and now came before the Council for final decision. Council *Resolved Nem. Con.* that the By-law be amended to read as above.

11. *Recognition of Goldfields Division as a Branch of the Association:* It was noted that the application by the Goldfields Division of the O.F.S. and Basutoland Branch to be recognized as a separate Branch of the Association had been approved in principle at the last Meeting of Council. A revised Constitution for the new Branch was submitted. It was pointed out by Dr. L. S. Robertson that certain amendments would be advisable, and the Secretary stated that the Executive Committee had agreed to recommend to Council 'That official recognition be granted to the O.F.S. Goldfields Division as a separate Branch of the Association as from 1 January 1960, and that the Constitution together with the suggested amendments be referred to the Executive Committee for final approval before that date. Council *Resolved* accordingly.

12. *Assistants for Part-time Specialists to Benefit Societies:* Council was reminded that a resolution adopted in 1956, reading 'That in the opinion of Council a specialist accepting an appointment to a benefit society should undertake to do the work himself', had been rescinded at the last Meeting of the Council.

A letter from the Southern Transvaal Branch was submitted suggesting that the following resolution be adopted to take the place of the one which had been rescinded: 'That where a practitioner appointed to a post of a benefit society finds that he is no longer able personally to fulfil the duties pertaining to that post, he shall notify the society to that effect and shall request that his duties be suitably curtailed and that an additional practitioner post

be created or that the Society appoint another practitioner to assist the practitioner holding the appointment in the fulfilment of duties attaching to the post.'

In this connection the Northern Transvaal Branch had also submitted a resolution reading: 'That Federal Council accepts the general principle that a general practitioner or specialist holding a benefit society or similar part-time appointment should do the work himself, with the proviso that he may arrange for an assistant or other practitioner to act for him in case of emergency and to do such portion of the work as will allow the principal reasonable off-duty periods, e.g. evening off, week-end off or annual holiday.'

Considerable discussion followed and an amendment was proposed by Dr. Schaffer, seconded by Dr. Penn, 'That, should the amount of work required from a practitioner who has been appointed to a benefit society post be such that it cannot reasonably be done by one practitioner, then an additional appointment should be made.' After further discussion the amendment was put to the vote and *Lost* by 17 votes to 19.

The Chairman stated that it was his intention to adjourn the Meeting in order that the Annual General Meeting of the Association might be held, followed by the lunch interval.

Council adjourned at 12.40 p.m.
and resumed at 2.10 p.m.

The discussion continued and the Chairman announced that representatives of the Northern and Southern Transvaal Branches had discussed the matter during the lunch interval and were putting up a joint resolution to cover the points of view of both Branches. It was thus proposed by Mr. Girdwood, seconded by Dr. Lawrance, 'That Federal Council accepts the general principle that a general practitioner or specialist holding a benefit society or similar part-time appointment shall do the work himself, with the proviso that he may arrange for an assistant or other practitioner to act for him in case of emergency and to do such portion of the work as will allow the principal reasonable off-duty periods.'

An amendment was proposed by Dr. Grundlingh, seconded by Dr. Turton, 'That whereas it would appear that it is impossible to legislate completely for regulations controlling the incumbents of benefit society posts, Council resolves that it be a charge on Branch Councils to keep a watching brief on conditions of appointment to benefit societies and to ensure that the ethical standards of the medical profession are not violated by medical practitioners accepting such appointments.'

A second amendment was proposed by Mr. Currie, seconded by Dr. Waks, 'That holders of benefit society appointments may employ assistants, but that they should in normal circumstances do the bulk of the work themselves.'

After considerable further discussion the second amendment was put to the vote. At the request of Dr. Paterson, proxy voting was allowed. There were 28 votes in favour of the amendment and 21 votes against it. On being put to the vote as the substantive motion, Council *Resolved* 'That holders of benefit society appointments may employ assistants, but that they should in normal circumstances do the bulk of the work themselves.' Dr. M. Shapiro requested that his vote be recorded against this resolution.

The Chairman then proposed certain changes in the order of business so as to meet the wishes of those members of the Medical Council who were present.

13. *Registration of Optometrists:* A report on the conference convened by the South African Medical and Dental Council on 4 July 1959, was submitted.

The Chairman stated that the Executive Committee had met the President and Honorary Secretary of the Ophthalmological Society on the previous day. As a result of the discussions which had taken place, the Committee had agreed to make the following recommendation: 'Having given serious and sympathetic consideration to the views and recommendations put forward by the representatives of the Ophthalmological Group, in view of all the circumstances the Executive Committee nevertheless unanimously agrees to recommend to Council that the compromise agreement reached at the conference convened by the South African Medical and Dental Council on 4 July 1959 be accepted.'

Full, free and protracted discussion followed.

Finally the recommendation of the Executive Committee was put to the vote and *Carried* by 34 votes to 9.

14. *Election of Vice-President/President-Elect:* The Chairman called for nominations. It was proposed by Dr. Sichel, seconded by Mr. Sweetapple, that Dr. W. Chapman, of Vereeniging, be elected Vice-President/President-Elect of the Association. There were no other nominations, and the Chairman declared Dr. Chapman to be duly elected. Acclamation.

Dr. Chapman expressed his thanks to Council, saying that this was the greatest honour which had every been conferred on him.

15. *Association's Commitments to its Secretary:* The Chairman referred Council to Item (4) of Minute 61 of the record of the last Meeting of Council. He also referred members to the legal opinion which had been obtained from the Association's attorneys, and stated that it was quite definite that the Association's agreement with the Secretary was that he was to be provided with a house. The Chairman reminded Council that it had been decided to leave the question of the sale of 'Byrness' to the Executive Committee. The Committee had agreed that the house be sold, but so far no purchaser had been found. The Executive Committee had discussed the question and, in view of all the cirucmstances and in view of the legal opinion, it had come to the conclusion that, should 'Byrness' be sold, the Secretary should be paid a personal allowance of £350 per annum in addition to his present salary.

The Secretary then read the recommendation of the Executive Committee as follows: 'That when "Byrness" is sold, a personal allowance of £350 per annum be paid to Dr. Tonkin while he is in the Association's service.'

There was no debate and when the recommendation of the Executive Committee was put to the vote, Council *Resolved* accordingly by 32 votes to 1.

REPORT OF THE EXECUTIVE COMMITTEE

16. *Medical Services Plan:* A copy of a letter addressed to the Honorary Secretary of the Southern Transvaal Branch on behalf of the Executive Committee was submitted, together with a copy of the reply. Also submitted were a resolution from the Group of Neurologists, Psychiatrists and Neurosurgeons, and a supporting memorandum protesting aginst the exclusion of psychiatric services from the Medical Services Plan.

The Secretary stated that this matter had been considered by the Executive Committee which had agreed to recommend to Council that the Southern Transvaal Branch be asked to submit a written report regarding the Plan to each Meeting of the Council.

Dr. Shapiro stated that he was willing to give the Council information regarding the progress of the Plan. At the request of the Chairman, he did so. At the conclusion of his address, a number of questions were asked and answered.

As far as psychiatric services were concerned, Council *Agreed* that it be left to the Sub-Group in the Southern Transvaal Branch area to negotiate with the Board of Management of the Plan regarding suitable arrangements.

The recommendation of the Executive Committee was put to the vote and Council *Resolved* accordingly.

Mr. Currie congratulated Dr. Shapiro on his reports to date. Acclamation.

Two rules which had been adopted by the Board of Management of the Plan at a meeting on 22 July 1959 were submitted, reading:

'*Rule I.* Where a Subscriber to the Plan or his dependant is obliged to seek medical services in an area where the Plan does not yet operate, the Plan will treat the Medical Practitioner concerned as a participating doctor for the purposes of payment, provided that the Medical Practitioner shall have agreed to accept payment from the Plan as a participating doctor before rendering services.'

'*Rule II.* Subscribing Membership to Medical Services Plan is open to any registered Medical Practitioner. Upon acceptance of an application for membership, the Medical Practitioner and his dependants shall be entitled to all benefits of the Plan in accordance with the Terms and Conditions set out in the Subscriber's Contract, provided that payment shall either be made annually in advance or otherwise secured to the satisfaction of the Board of Directors of Medical Services Plan.'

Dr. Shapiro moved that these two rules be accepted. Council generally *Agreed.*

17. *South African Medical and Dental Council—Ethical Rule* 19: A report of a meeting of the Executive Committee of Federal Council and the Executive Committee of the Medical Council, held in Pretoria on 11 July 1959, was submitted.

The Chairman explained the difficulties arising out of the present situation.

After discussion it was proposed by Dr. Shapiro, seconded by Dr. Sichel, 'That the Medical Council be informed that the Association is desirous of it pursuing the matter of promulgation of Rule 19 (*ter*), and, if this is not possible under existing legislation, that the appropriate enabling legislation be sought. On being put to the vote, this was *Carried*.

18. *Transfer of Associate Secretary:* It was reported that arrangements had been made for Dr. Marchand to take up his duties in Pretoria towards the end of October, that additional accommodation had been obtained at the Pretoria office and that his household furniture and certain office furniture would be removed by road. *Noted.*

19. *Association's Silver Medal:* The Chairman reported that, with Dr. Nelson, he had visited Dr. Pijper and presented the Association's Silver Medal to him. *Noted.*

20. *World Medical Association—Appointment of Delegates to Meetings:* It was reported that the Second World Conference on Medical Education had been held in Chicago from 29 August to 4 September. Mr. T. B. McMurray had represented the Association on this occasion. *Noted.*

It was also reported that the 13th General Assembly of the World Medical Association had been held in Montreal from 7-12 September. The Association had been represented at that meeting by Prof. Harding le Riche, now Professor of Public Health in Toronto, and Dr. D. A. van Binnendijk, now Director of Hospital Services in New Brunswick. Both were former members of the Association. *Noted.*

It was further reported that the Association had been asked to appoint a representative to attend the World Health Organization meeting of the Africa Region to be held in Nairobi from 21 to 26 September 1959, who would act as an observer on behalf of the World Medical Association. It had not been possible to find a representative to attend this meeting. *Noted.*

21. *Availability of Tetanus Toxoid for Immunization Purposes:* A report of a meeting of the Executive Committee with the Secretary for Health, held in Pretoria on 11 July 1959, was submitted. The Executive Committee recommended that Council accept the position as set out by the Secretary for Health and that it agree not to press its representations any further at this stage. Council *Resolved* accordingly.

22. *Amendments to Constitution of South African Orthopaedic Association:* It was reported that the Executive Committee had dealt with proposed amendments to the Constitution of the South African Orthopaedic Association as a matter of urgency, and had agreed that they be approved, subject to certain alterations in wording for the sake of clarity. Council *Resolved* that the action of the Executive Committee be *Confirmed.*

23. *Request by Advisory Council of Medical Aid Societies:* It was reported that the Advisory Council of Medical Aid Societies had requested permission to send a deputation to meet Federal Council in order to discuss (*a*) the upper income limit, (*b*) visiting fees for general practitioners outside the large centres, and (*c*) the incorporation of new firms. The Executive Committee had agreed that Council receive a deputation at 2.15 p.m. on Friday 25 September. Council *Resolved* that the action of the Executive Committee be *Confirmed.*

24. *Sale of 'Byrness':* It was reported that this property had been placed in the hands of estate agents in order to see whether a purchaser could be found. The Executive Committee had agreed that the property should be painted externally to maintain or improve its value as a saleable asset. *Noted.*

25. *Permission for Official from Association to Serve on Proposed Commission of Enquiry:* It was reported that an official of the Association might be asked to serve on a Commission of Enquiry into the costs of medical treatment in South Africa, and that the Executive Committee had agreed that there would be no objection to this appointment.

It was suggested by Dr. Shapiro that it would be undesirable for an official to serve in this capacity. He put forward a proposal to this effect which was later withdrawn with the consent of Council.

Discussion followed and it was recognized that nothing might come of the suggestion which had been made. Should the occasion arise, the Executive Committee would deal with the matter as one of urgency.

Dr. Struthers moved the adoption of the Report of the Executive Committee. Council *Resolved* that the Report be adopted.

REPORT OF HEAD OFFICE AND JOURNAL COMMITTEE

26. *Meetings of Committee:* Dr. Sichel reported that 5 ordinary meetings and 1 adjourned meeting had been held since the last Meeting of Council. The average attendance had been 9 members. He reminded Council that the Minutes of all meetings had been circulated, so that they had been kept informed, and that in the circumstances only those matters on which the Committee wished to make a recommendation to Council were included in the Report. They were:

27. *Appointment of Temporary Assistant Editor:* In accordance with the decision of Council, this appointment had been advertised. There had been 2 applicants. The applications had been considered and after much thought the Committee had agreed to recommend to Council that Dr. T. Shadick Higgins be asked to continue to serve as temporary Assistant Editor, and that the post of Assistant Editor on the scale £2,180 × 60 — £2,600 be advertised, the successful applicant to assume duty on 1 January 1960 or as soon as possible thereafter. Council *Resolved* accordingly.

28. *Staff Superannuation Fund:* It was reported that members would have seen reference to this subject in which the South African Mutual Life Assurance Society, which administered the Fund, had suggested ways in which the amount of pension available to employees would be reasonably increased. The salient features of this scheme were the raising of the age of retirement and a sliding scale of pension contributions based on the age of the employee. The Committee had agreed to recommend to Council: (*a*) that the pension age in the Association's service be raised from 60 to 65 for men and from 55 to 60 for women; (*b*) that the sliding scale of pension contributions be introduced as from 1 January 1960 in accordance with the proposals of the South African Mutual Life Assurance Society.

Considerable discussion followed. In connection with the sliding scale of pension contributions, Dr. Shapiro suggested that this should be based on length of service rather than on age.

It was pointed out that as the renewal date for the Fund was 1 January each year, it would be necessary to reach some agreement on this proposal before 1 January 1960.

After further discussion Council *Resolved* that this question be referred to the Executive Committee with power to act.

With regard to the question of the raising of the pension age, further discussion ensued. It was proposed by Mr. Currie, seconded by Dr. Alexander, that the retiring age be 65 for men and 60 for women. After further discussion the Chairman proposed that this matter be referred to the Executive Committee for action, and he suggested that Mr. Currie agree to withdraw his resolution. Mr. Currie, his seconder and Council *Agreed* accordingly. Council then *Resolved* that the question of the retiring age of Association officials be referred to the Executive Committee.

Council adjourned for dinner
from 6.30 p.m. to 8.40 p.m.

29. *Lay Staff Salary Scales:* It was reported that arising out of the consolidation of the cost-of-living allowances of medical staff which had been agreed on at the last Meeting of Council, the Committee had considered the scales of members of the lay staff, and in accordance with By-law 58 it had agreed to revise the scales for the women employees which would come into effect on 1 January 1960. As far as the 2 lay male members of the staff were concerned, the Committee had agreed to recommend to Council that the scale for the male bookkeeper be £800 × 40 — 1,120, and that the scale for the Business Manager be £1,500 × 50 — 2,000, as from 1 January 1960.

The decision of the Committee regarding the female employees was *Noted*, and Council *Resolved Nem. Con.* that the salary scales for the male bookkeeper and the Business Manager be as noted above as from 1 January 1960.

30. *Expression of Opinion by Officials:* It was reported that at the request of the Assistant Secretary (Transvaal), the Committee had considered certain items of correspondence and had come to the conclusion that officials of the Association should be free to express their personal opinions regarding any questions which might be put to them, provided it is made clear that they are personal opinions. The Committee recommended to Council that its conclusion be confirmed.

The Chairman stated that the Executive Committee supported the recommendation of the Head Office and Journal Committee.

After considerable discussion, it was proposed by Dr. Shapiro, seconded by Dr. Waks, that the question be now put. On being put to the vote, this motion was *Lost*, there being 8 votes in its favour.

The recommendation of the Committee was then put to the vote and Council *Resolved* that officials of the Association should be free to express their personal opinions regarding any questions which may be put to them, provided it is made clear that they are personal opinions.

31. *Travelling and Subsistence Allowances:* At the request of the Secretary, the Committee had considered certain anomalies which arose from time to time in connection with the paying of these allowances to members of Council. The Committee had agreed to recommend to Council that Standing Order 13 be amended to read: 'Members travelling to Meetings of the Council or any Committee thereof or on other business of the Council shall be paid the equivalent of the return air fare from the aerodrome nearest to the place of residence to the aerodrome nearest to the place of Meeting. If motor car travel is used in addition to air travel or alternatively where air travel is not available, the rate of refund shall be £1 0s. 0d. per 25 miles or part thereof travelled up to a maximum of 200 miles. Subsistence allowances at the rate of £2 2s. 0d. per day shall be payable for each day of the Meeting as well as the day preceding and the day succeeding the Meeting.'

An amendment was proposed by Dr. Theron, seconded by Mr. Sweetapple, that the maximum of 200 miles be increased to 300 miles. This amendment was put to the vote and was *Carried*.

The amended recommendation of the Committee was then put to the vote and Council *Resolved* that Standing Order 13 be amended accordingly.

Council further *Agreed* that the new rates be applicable to the present Meeting.

32. *Emoluments of Business Manager:* It was reported that after the preparation of the Committee's Report, the Committee had considered the emoluments of the Business Manager and had agreed to recommend to Council that the entertainment allowance paid to the Business Manager be increased from £150 to £200 per annum as from 1 January 1960, and that in addition he be paid a personal pensionable allowance of £200 per annum as from 1 January 1960.

After discussion the recommendation regarding the increase of the entertainment allowance to £200 per annum was put to the vote, and Council *Resolved Nem. Con.* that this increase be granted.

In connection with the personal pensionable allowance of £200 per annum, an amendment was proposed by Dr. Shapiro that the matter be referred to the Executive Committee for recommendation. On being put to the vote, the amendment was *Carried* by 25 votes to 14. The amendment was then put as a substantive motion and Council *Resolved* accordingly.

Dr. Sichel then moved the adoption of the Report of the Head Office and Journal Committee as amended. Council *Resolved* that the amended Report be adopted.

REPORT OF MANAGEMENT COMMITTEE OF BENEVOLENT FUND

33. *New Grants:* Dr. Sichel presented the Report and stated that the Committee had made new grants as follows: Mrs. M.W. (Cape Western and Northern Transvaal Branches) £180 per annum; Mrs. M.L.W.P. (Cape Western Branch) £180 per annum; Mrs. M.O.G. (Natal Coastal Branch) £180 per annum; Mrs. H.P. (Southern Transvaal Branch) £120 per annum; Dr. G.W.D. (Border Branch) £30 per month for 3 months as from 1 August 1959, subject to further consideration. The Committee recommended to Council that these grants be confirmed. Council *Resolved* accordingly.

34. *Increased Grants:* It was reported that grants had been increased as follows: Mrs. E.C. (Southern Transvaal Branch) from £150 to £210 per annum; Mrs. M.D. (Southern Transvaal Branch) from £150 to £180 per annum. The Committee recommended to Council that these increased grants be confirmed. Council *Resolved* accordingly.

35. *Death of a Beneficiary:* The Committee recorded with regret the death of Mrs. F. W. who had been a beneficiary of the Fund for 15 years. *Noted.*

36. *J. S. du Toit Memorial Fund:* It was reported that the amount contributed to this fund was £219 9s. 8d. It had been realized that this was totally inadequate for the for the founding of a scholarship. In the circumstances the Committee had agreed to recommend to Council that the money be passed to the University of Cape Town for investment, the proceeds to be devoted to a Memorial Prize in Ophthalmology on similar lines and conditions to those which applied to the Moffat Prize in Surgery and the Dowie Dunn Prize in Paediatrics. Council *Resolved* accordingly.

37. *Memorial Scholarship Endowment Fund:* It was reported that the Committee had considered this matter arising out of a letter which had appeared in the *Journal*. It had been suggested that a Memorial Scholarship Endowment Fund be established as part of the Association's Benevolent Fund, and that it be administered by the Management Committee. The main object of the Fund would be to provide scholarships for the assistance of the needy sons and daughters of deceased members of the Association for the study of medicine. In certain deserving cases assistance could be given for other purposes of education. It was stated that the Committee felt that members who had themselves been assisted by scholarships, either as undergraduates or as postgraduates, might be ready and willing to contribute to such a Fund to assist others, and that the amount at present contributed to the Benevolent Fund 'In Memoriam' should, with the permission of Council, be diverted in future to the Scholarship Fund instead of the general Benevolent Fund. The fact that donations had been made thus should be recorded in an 'In Memoriam' book at the Head Office, in which each year the names of the deceased members and the donors are inscribed. Similarly, the Scholarship Fund would take over in time all the grants for educational purposes at present being made by the Benevolent Fund. The Committee recommended to Council accordingly.

On being put to the vote, Council *Resolved Nem. Con.* that the Memorial Scholarship Endowment Fund be established in the terms of the Committee's recommendation.

38. *Donations:* Dr. Sichel stated that once again the Committee wished to acknowledge with grateful thanks the numerous donations which were being made to the Fund both by individuals and by Branches. He mentioned that a pleasing feature of the efforts of the latter was the part which doctors' wives were playing in building up the Fund through the social occasions which they organized for the benefit of the Fund. In this connection he mentioned an amount of £2,532 which had just come to hand as the result of a successful function organized by Mrs. Girdwood and the ladies of the Southern Transvaal Branch. Acclamation.

Dr. Sichel then moved the adoption of the Report of the Management Committee of the Benevolent Fund. Council *Resolved* that the Report be adopted.

39. *Thanks to Dr. Sichel:* The Chairman proposed a vote of thanks to Dr. Sichel for his valuable work in connection with the Head Office and Journal Committee and the Management Committee of the Benevolent Fund. This was accorded with acclamation.

Council adjourned at 10 p.m.

FRIDAY 25 SEPTEMBER

The Meeting commenced at 9.10 a.m.

40. *Week-end Fees—Medical Aid Societies:* It was reported that at the last Meeting of Council notice of motion by Dr. J. H. L. Shapiro and Dr. Oates had been submitted, reading: 'That Item 15 (1), page, 9, of the Report of the Contract Practice Committee, be reviewed and rescinded and that it read: "That general practitioners—not the medical aid societies—have the option to make use of the optional clause".'

It was pointed out that the Natal Coastal Branch General Practitioners' Sub-Group had wished the week-end and public holiday fees to be obligatory and not optional. The Central Committee for Contract Practice had considered that this meant that the society should be forced to pay the higher fee in all cases of initial visits made at the times mentioned. The present practice was that the increased amount was passed on by the society to the patient who was the cause of the inconvenience of 'after hours' calls. This decision had been reached by agreement with the Committee, and it was for the doctor to charge as he thought fit. It was pointed out that to make the increased fee obligatory would be contrary to the spirit of the words appearing at the head of each fee list, reading, 'Reduced fees should also be charged where the practitioner would have reduced his fee in private practice in particular circumstances.'

The Secretary stated that the Executive Committee had agreed to recommend to Council that the notice of motion be not supported.

After discussion the matter was put to the vote. Council *Resolved* that no action be taken.

41. *Negotiations with Mines Benefit Society:* Mr. Girdwood, as President of the Southern Transvaal Branch, reported that a joint meeting of the Branches concerned had been convened and it had been agreed that the matter be left in *status quo* as long as no services were withdrawn. This would mean that all future appointments to the Mines Benefit Society would be on a temporary basis. He mentioned that his Branch wished Council to review the whole question of the income limit and conditions applicable to the recognition of benefit societies.

The Secretary stated that the Executive Committee had agreed to recommend to Council that the Branches concerned be informed 'that it is their duty to meet the Mines Benefit Society, and if any one Branch does not agree on the details of the policy to be adopted, the matter should be referred to the Central Committee for Contract Practice.'

Discussion followed and eventually the recommendation of the Executive Committee was put to the vote. Council *Resolved* accordingly, there being 1 dissentient vote.

42. *General Practice Fees in Johannesburg Area:* Four memoranda on this subject had been submitted, and a resolution proposed by Mr. Girdwood, seconded by Dr. L. S. Robertson, was read as follows: 'That the report of the *ad hoc* committee appointed by the Southern Transvaal Branch, and the various memoranda submitted by the Southern Transvaal Branch, be referred to the Central Committee for Contract Practice to negotiate with the Advisory Council of Medical Aid Societies when the Tariff of Fees for Approved Medical Aid Societies shall come under review.'

After considerable discussion, the motion was put to the vote and *Carried Nem. Con.*

43. *Medical Certificates for Life Insurance:* At the last Meeting of Council certain increases in the fees for medical certificates for life insurance purposes had been agreed upon. These had been referred to the Life Offices' Association, and a letter had been received in which it was recorded that the Management Committee of the Life Offices' Association had agreed to the fee of £1 1s. 0d. as laid down by Council, for the following certificates: (1) A certicate given by a medical attendant in connection with a death claim (payable by the deceased estate); (2) a report on the past health of a deceased person (payable by the life insurance company); (3) a report on the past health of a person applying for insurance (payable by the life insurance company). The letter went on to advise that the Management Committee had formed the opinion that it would be advisable for life insurance companies to adopt the following procedure regarding medical certificates:

(*a*) To obtain the following form of authorization from an applicant for insurance or a person whose life is insured: 'I hereby irrevocably authorize and request any doctor or other person who may be in possession of, or hereafter acquire, any information concerning my health up to the present time to disclose such information to ... Insurance Co. Ltd., and I agree that this authority and request shall remain in force after my death as well as prior thereto.'

(*b*) In the case of a death claim under a policy, to obtain the following form of authorization from the executor or other person claiming under the policy: 'I hereby irrevocably authorize and request any doctor or other person who may be in possession of, or hereafter acquire, any information concerning the health of the deceased up to the date of his death to disclose such information to ... Insurance Co. Ltd.'

(*c*) To obtain such an authorization not only when a policy is applied for, but also when a policy is revived or when a death claim arises—in fact, whenever the insurance company requires, or may require, information from a doctor.

The Secretary stated that the Executive Committee had agreed to recommend to Council that these proposals of the Life Offices' Association be accepted. Council *Resolved* accordingly.

44. *Restriction of a Specialist to His Own Speciality:* It was reported that a matter raised by the Thoracic Surgeons' Group had been deferred for discussion to the present Meeting. This matter concerned the performance of thoracic operations by general surgeons. In the circumstances the Group had decided to request Council to ask the South African Medical and Dental Council to review the specialist register regulations, as the Council's intentions seemed uncertain.

The Secretary stated that he had approached the Registrar of the Medical Council in order to find out whether the Council had ever expressed its opinion on this matter and if there had been any reference to it in the Council's codified list of rulings. The Executive Committee had been informed of the Registrar's reply and had agreed that the Thoracic Surgeons' Group be informed accordingly. The Secretary stated that the Executive Committee had agreed to recommend to Council that no approach be made to the South African Medical and Dental Council in connection with a change regarding the rules for specialist registration. Council *Resolved* accordingly. Dr. Shapiro requested that his vote be recorded against this motion.

45. *Unregistered Medical Practice:* The Secretary reported that in accordance with the instructions of Council, 2 circulars had been sent to all members of Council and all Honorary Secretaries of Branches and Groups. So far the response had been poor. He reminded Council that the South African Medical and Dental Council was anxious to obtain the required information. Council *Resolved* that this be *Noted.*

46. *Uniefees Celebrations:* The Secretary reported that the Branches had been informed that if they were to be asked to co-operate in local celebrations they should attempt to do so. No reports had come to hand. Council *Resolved* that this be *Noted.*

47. *Financial Statement and Balance Sheet for the Year Ended 31 December 1958*: The Chairman reminded Council that at the last Meeting it had been agreed that discussion on this matter be deferred to the present Meeting.

There was no discussion and it was *Resolved* that the statement be *Noted.*

48. *Financial Report for Half Year Ended* 30 *June* 1959: The Honorary Treasurer submitted a Report which he proceeded to amplify. Certain questions were asked and answers were given.

After short discussion, Mr. Joubert proposed the adoption of his Report. Council *Resolved* that the Report be adopted.

REPORT OF THE AUGMENTED EXECUTIVE COMMITTEE IN THE TRANSVAAL

49. *Partnerships in Relation to Hospital Appointments:* It was reported that the revised policy adopted by Council had been conveyed personally to the Acting Director of Hospitals in the Transvaal. Council *Resolved* that this be *Noted.*

50. *Lack of Teaching Material in Johannesburg General Hospital:* It was reported that this matter had been taken up with the University of the Witwatersrand and the Director of Hospital Services. The Committee had agreed that, pending the receipt of a further communication from the Registrar of the University, it would seek an interview with the Director of Hospital Services to discuss the problem. The Assistant Secretary (Transvaal) had been directed to make the arrangements for this interview.

The Assistant Secretary (Transvaal) outlined the steps which had been taken since that time. It had been suggested that the Association should advise practitioners to again accept the responsibility which they had accepted under the previous Hospitals Ordinance, and be prepared to act as recommending officers in the interests of their patients. The Committee had agreed to recommend to Council that the medical profession accept this responsibility as it would be preferable to the alternate procedure, namely, the alteration by the Province of the present income ceilings laid down for the purpose of classification of patients. Council *Resolved Nem. Con.* that this recommendation be accepted.

The Chairman referred to a further Report which had been submitted by the Committee, in which it was suggested that the Johannesburg General Hospital could receive more suitable teaching material if certain classes of patients were diverted to other hospitals. As a result of this suggestion, the Committee had agreed to recommend to Council that all members of the Association be advised to accept the diversion of their patients between the various hospitals. Council *Resolved* that this recommendation be accepted.

51. *Proposed Purchase of a Private Nursing Home in Johannesburg and the Possible Effect of This on the Number of Beds in Private Nursing Homes Available to Private Patients:* A short report on this subject was submitted and Council *Resolved* that it be *Noted.*

52. *Medical Aid for Injured Mine Workers in the Klerksdorp Area:* It was reported that the Committee had concurred in an agreement which had been reached between the Rand Mutual Assurance

Company and the Provincial Administration regarding the treatment of injured mine employees at the Klerksdorp Hospital. Council *Resolved* that the action of the Committee be *Confirmed*.

53. *Staffing of the Louis Trichardt Hospital:* A report was submitted, setting out the difficulties which had arisen at the Louis Trichardt Hospital due to the resignation of 3 part-time doctors. The Chairman had instructed the Assistant Secretary (Transvaal) to visit Louis Trichardt and to discuss the matter with the doctors concerned. As a result, the resignations had been withdrawn and the whole problem had been resolved. Acclamation. Council *Resolved* that this be *Noted*.

Dr. Struthers then moved the adoption of the Report of the Transvaal Augmented Executive Committee. Council *Resolved* that the Report be adopted.

54. *Report of the Augmented Executive Committee in the Cape:* In the absence of Dr. Sichel, the Secretary presented the Report which had been circulated. It was stated that a meeting of the Liaison Committee had been held, at which 2 Port Elizabeth members had been present representing the Cape Midlands Branch. A sub-committee had been appointed to work out the details in accordance with the basic principles laid down by Council. These details were still being considered by the Provincial authorities, and it was expected that a further meeting of the sub-committee would be held in order that recommendations might be made to a later meeting of the Liaison Committee.

Dr. M. A. Robertson asked whether permission would be given for a representative of the Cape Midlands Branch to attend the next meeting of the Liaison Committee. The Chairman assured him that an invitation would be issued to the Branch to send a representative.

The Secretary then moved the adoption of the Report of the Cape Augmented Executive Committee. Council *Resolved* that the Report be adopted.

55. *Report of the Augmented Executive Committee in Natal:* Mr. Armitage reported regarding the problems in this Province and referred particularly to the 'farming out' of honorary practitioners in regard to Workmen's Compensation cases. At the conclusion of his statement, Mr. Armitage proposed the adoption of his Report. Council *Resolved* that the Report be adopted.

56. *Report of the Augmented Executive Committee in the Orange Free State:* Dr. Theron presented this Report and referred particularly to the representations which had been made regarding the extension of the retiring age for medical women to 65 years. At the conclusion of the Report, it was proposed by Dr. Theron, seconded by Dr. Troskie, '(*a*) Dat dit die weloorwoë mening van hierdie Raad is, dat daar geen fisiologiese of mediese rede is vir enige verskil in die aftree ouderdom van mans en vroue wat dieselfde werk doen nie; en (*b*) dat hierdie mening onder die aandag gebring word van daardie Provinsiale owerhede wat wel 'n verskil maak.' Council *Resolved* accordingly.

Dr. Theron then moved the adoption of the Report of the Committee. Council *Resolved* that the Report be adopted.

To be continued in the issue of the Journal *for the 5 December*

BOEKBESPREKINGS : BOOK REVIEWS

TREATMENT OF HEART DISEASE

Konservative und chirurgische Behandlung angeborener und erworbener Herzfehler. 3 Vorträge. Von Prof. Dr. E. Derra, Prof. Dr. O. Bayer und Dr. H. H. Wolter. iv + 64 Seiten. 25 Abbildungen. DM 6.40. Stuttgart: Georg Thieme Verlag. 1959.

In this book cardiac treatment is discussed under 3 different headings, viz. (1) cardiac surgery in general, including (*a*) cardiopathy without shunt, (*b*) angiocardiopathy with L-R shunt, and (*c*) cyanotic conditions; (2) conservative treatment; and (3) indications for surgery. All the observations and suggestions are based on experience compiled from 2,000 heart operations performed in the author's clinic.

It is redundant to discuss the author's classification of operable and inoperable cardiac abnormalities. The reviewer feels quite sure that operations on conditions which are labelled inoperable today will be common practice in a few years' time.

The text is very well discussed and arranged, and is accompanied by highly illustrative photographs which make for easy understanding.

The cardiac surgery described in this book is performed under cardiac bypass in combination with hypothermia—a procedure which is not practised in this country, nor in the big American heart units.

D.J.H.

SCHIZOPHRENIC SYMPTOMS AS A COMMUNICATIVE DEVICE

The Symptom as Communication in Schizophrenia. Editor: Kenneth L. Artiss, M.C. Pp. vi + 233. $5.75. New York and London: Grune & Stratton, Inc. 1959.

This is a study of 16 schizophrenic patients chosen on the basis of their having been capable of a minimal (time) adaptation to military service. The disciplines of psychiatry, social work, sociology and anthropology have been brought together in a comprehensive study of these individuals and their group-adjustment at most stages of their lives. They have been treated by individual and group psychotherapy in a total-milieu therapeutic approach in a special ward of the Walter Reed Army Institute of Research, Washington.

The authors present a series of hypotheses derived from the data which appear to them to present a coherent frame of reference within the framework of the main hypothesis that the schizophrenic symptom may be used as an informative and communicative device in transactions between the patient and others.

In the absence of any controls in this study, the hypotheses cannot be scientifically evaluated and in spite of their thoroughness the observations therefore add little to the academic knowledge of the subject so far as any of these disciplines are concerned.

W.J.B.

IN DIE VERBYGAAN : PASSING EVENTS

South African Paediatric Association (M.A.S.A.), Cape Town Sub-group. The next meeting of this Sub-group will consist of a clinical evening and demonstration of cases at the Alexandra Institute, Maitland, Cape, on Tuesday 1 December. Will all members please meet at the main gates of the Institute at 8 p.m. Visitors will be welcome.

* * *

South African Institute for Medical Research, Johannesburg. Staff Scientific Meeting. A meeting will be held on Monday 7 December in the Institute Lecture Theatre at 5.10 p.m. Dr. G. H. Findlay, Head of the Photobiology Group, CSIR, and the Section of Dermatology, Department of Medicine, Pretoria General Hospital, will lecture on 'The photochemistry of the skin'. Tea will be served at 4.45 p.m. and visitors will be welcome.

Dr. Louis Potgieter, spesialis-internis, en voorheen voltydse internis aan die Karl Bremer-Hospitaal, Bellville, Kaap, tree op 1 Januarie 1960 in die praktyk saam met dr. J. D. M. Classens, te Nederlandse Bank-gebou 610, St. Georgesstraat, Kaapstad. Dr. Potgieter was voorheen verbonde aan die Kardiopulmonale Eenheid van die Lankenau-Hospitaal, Philadelphia, V.S.A., waar hy konsulterende kardioloog was.

Dr. Louis Potgieter, specialist physician, and formerly full-time physician at the Karl Bremer Hospital, Bellville, Cape, will join the practice of Dr. J. D. M. Classens, 610 Netherlands Bank Building, St. George's Street, Cape Town, on 1 January 1960. Dr. Potgieter was formerly a consultant cardiologist at the Lankenau Hospital, Philadelphia, USA.

Dr. Sidney Stein, dermatologist, of Cape Town, has returned to his practice at Medical Centre after a 3½-month overseas visit.

Dr. Sidney Stein, dermatoloog, van Kaapstad, het sy praktyk te Mediese Sentrum hervat na 'n oorsese reis van 3½ maande.

* * *

Dr. P. W. J. Bosman has joined the practice of Drs. M. H. Finlayson, H. W. Clegg and A. S. Peden as a specialist pathologist at 601 Dumbarton House, Church Street, and 305 Medical Centre, Heerengracht, Cape Town. Telephones: Rooms 2-7521, residence 6-2795.

Dr. P. W. J. Bosman praktiseer nou saam met drs. M. H. Finlayson, H. W. Clegg and A. S. Peden as 'n spesialis-patoloog te Dumbarton Huis 601, Kerkstraat, en Mediese Sentrum 305, Heerengracht, Kaapstad. Telefone: Spreekkamer 2-7521, woning 6-2795.

* * *

Dr. J. Adno, of 502 Medical Arts Building, Johannesburg, has changed the telephone number of his consulting rooms to 23-4971. This number does not appear in the current Telephone Directory.

Dr. J. Adno, van Medical Arts-Gebou 502, Johannesburg, het die telefoonnommer van sy spreekkamer verander tot 23-4971. Hierdie nommer verskyn nie in die Telefoongids wat nou in die omloop is nie.

* * *

Cape Western Branch (M.A.S.A.). The annual Branch religious service was held in the Great Synagogue, Gardens, Cape Town—the place of worship of the President of the Branch, Dr. A. Landau—on Friday 13 November at 6 p.m. A large congregation of doctors and their wives was present, and a contingent of the Voluntary Aid Corps of the Red Cross also attended the service.

New Information Regarding Leprosy. New data on the way leprosy spreads were revealed at the meeting of the WHO Second Expert Committee on leprosy which was recently held in Geneva. It was shown that a definite susceptibility to leprosy exists, since not everyone in close contact with a leper is likely to contract the disease. For example, conjugal leprosy is very rare. Moreover, children, the most vulnerable age-group, often do not get leprosy from parents who are sufferers. In order to contract the disease, which is less contagious than tuberculosis and most other common infections, a special susceptibility is necessary in healthy individuals. On the other hand, resistance to leprosy can be acquired and detected. Persons with this resistance contract the disease only in a mild form.

The members of the Committee recommended that leprosy campaigns now under way should be followed up and extended, using ambulatory treatment with sulfones. Ambulatory care is, in fact, the only valid method of dealing with the problem since there are about 12,000,000 leprosy sufferers in the world, mostly in tropical and equatorial countries, and not more than 100,000 of them can be hospitalized in existing institutions. There are 1,500,000 persons already receiving treatment while remaining with their families and it is hoped greatly to increase this number in the near future.

The ugliness of deformities caused by leprosy is one of the reasons for the universal fear and loathing it arouses. These deformities can be prevented by early treatment. Moreover, incipient deformities can be prevented by teaching the patient how to care for his hands and feet. The Committee also emphasized that many deformities can be corrected by physiotherapy and plastic surgery.

The legislation which exists in some countries, requiring that leprosy patients should be segregated, was also discussed. Such legislation, it was felt, should be abolished in view of the relatively low infectivity of leprosy, a disease which should be dealt with as an ordinary public health problem in the same manner as other communicable diseases.

FARMASEUTIESE NUUS : PHARMACEUTICAL NEWS

Westdene Products (Pty.) Ltd. announce that they have been appointed the sole agents in South Africa for Calmic Ltd. of Crewe, England.

Calmic is a comparatively young company, having been founded in 1932, and the Pharmaceutical Division came into operation as recently as 1939. Yet Calmic have strong ties with the past because the Administrative Department and the Research Laboratories are housed in historic Crewe Hall. The manufacturing side of the Calmic organization is carried out in 13 separate buildings in the grounds, which allows for different processes to be carried out in completely separate units.

This young progressive company, due possibly to its activities not being fettered by custom and tradition, has made great progress in the last 20 years. Several products of Calmic original research, such as polybactrin, have already made a considerable impact in medicine, and a wide range of products is now being made available to doctors and chemists throughout the world. Their research department is working on several interesting new preparations which Westdene hope to have the privilege of introducing in the near future.

The Engineering Division of Calmic has been represented in South Africa for several years. However, it is only in the last few months that arrangements have been completed whereby Westdene will market the major pharmaceutical products produced by Calmic. Stocks are already arriving and promotion will start in January 1960.

NUWE PREPARATE EN TOESTELLE : NEW PREPARATIONS AND APPLIANCES

AMPHACTIL

Maybaker (S.A.) (Pty.) Ltd. announce the introduction of a new medical product, Amphactil brand chlorpromazine/dexamphetamine tablets.

Amphactil is indicated for the treatment of mild depressive states with anxiety and for the relief of pain associated with a psychogenic factor. Each magenta-coloured sugar-coated tablet contains chlorpromazine hydrochloride BP 25 mg. and dexamphetamine sulphate BP 5 mg.

Amphactil is available in containers of 50 and 500 tablets and will retail at the price of 11s. 3d. for 50 tablets.

BRIEWERUBRIEK: CORRESPONDENCE

INCREASED AMINO-ACIDURIA IN KWASHIORKOR

To the Editor: We have read with great interest the abstract of the Research Forum paper by Drs. Schendel and Hansen published in the *Journal* of 17 October 1959.[1]

It is likely that the presence of raised plasma levels of amino acids in kwashiorkor which they describe is caused by an enzyme-deficiency blocking deamination. Studies[2] have shown that there is a deficiency in delta-amino-oxidase in the plasma of patients with kwashiorkor.

One of the results of defective deamination, with which delta-amino-oxidase is concerned, would be a reduction in the available keto-acids for effective gluconeogenesis. We believe that this derangement in deamination may be causally related to the occurrence of severe attacks of hypoglycaemia in kwashiorkor.

Normally, gluconeogenesis would tend to maintain blood-sugar levels even in the presence of restricted carbohydrate intake. Should gluconeogenesis, which maintains blood sugar levels under stress conditions, be inadequate, hypoglycaemia is likely to occur. This would tend to appear more readily in the presence of reduced liver glycogen stores and in brief periods of starvation.

Schendel and Hansen indicate that amino-acid levels return to normal as recovery proceeds. This might indicate recovery of deficient enzyme systems and increased utilization of administered protein, both for gluconeogenesis and tissue synthesis.

Clinical observations support our views. At this Hospital hypoglycaemia has been observed exclusively in untreated cases of kwashiorkor or in patients who have been treated for less than 3 days on high protein feeds.

It has also been shown that a predisposition to hypoglycaemic attacks exists in cases of kwashiorkor with clinical hepatomegaly and a slightly raised serum-bilirubin level.

It would be interesting to know whether raised amino-acid levels are more common in this type of patient.

D. Slone
L. S. Taitz
G. Gilchrist

Department of Paediatrics
Baragwanath Hospital
Johannesburg
10 November 1959

1. Schendel, H. E. and Hansen, J. D. L. (1959): S. Afr. Med. J., 33, 871.
2. Burch, H. B., Guillermo, A., Schwartz, R., Padilla, A. M., Behar, M., Viteri, F. and Scrimshaw, S. N. (1957): J. Clin. Invest., 36, 1579.

STERILISASIE VIR SEKSUELE OORTREDINGS

Aan die Redakteur: Liggaamlike seksbevrediging blyk, volgens sommige skrywers, die hoogste graad te wees waartoe menslike liefde in staat is! Dieselfde kan natuurlik gesê word van bokke . . .

Nadat dr. v. d. Westhuyzen eers voorgestel het dat slegs die onbenullig-klein gedeelte van seksuele oortreders, naamlik die Bantoemans onder hulle, gekastreer moet word,[2] het hy nou blykbaar sy visier uitgebrei om *alle* menslike seksmisdadigers in te sluit.[3] In dieselfde trant het selfs 'n professor onlangs voorgestel dat kunsmatige inseminasie met behulp van 'n skenker toegepas behoort te word om die gehalte van die volk te ‚verbeter'—bloot omdat dit met welslae by diere toegepas is. Nou ja, ‚great moral issues are involved, and there can be no morality without religion'.[4] So is ieder mens in staat tot ietwat meer verfynde gewaarwordings as bloot die dierlike, al na gelang van sy vermoë om te gee sowel as om te neem. Paulus stel hierdie feit van wesentlike ‚onderskeid' van diere en mense, en tegelykertyd die ‚enersheid' van alle Bantoes en ander mense, meesterlik:[5]

> ‚As julle dan saam met Christus opgewek is, soek die dinge daarbo waar Christus is en aan die regterhand van God sit.
>
> Bedink die dinge wat bo is, nie wat op die aarde is nie . . .
>
> Lieg nie vir mekaar nie, omdat julle die oue mens met sy werke afgelê het
>
> en julle met die nuwe mens julle beklee het wat vernuwe word tot kennis na die beeld van sy Skepper,
>
> waar daar nie Griek en Jood, besnedene en onbesnedene, barbaar, Scith, slaaf, vryman is nie; maar Christus is alles en in almal . . .'

Dit is duidelik van dr. v. d. Westhuyzen se brief[3] dat ek my vorige skrywe moet ophelder. Die seksmisdadiger oortree *as persoon*, en sy straf behoort dus gevarieer te kan word na gelang van die aard en waarskynlikheid van twyfel en versagtende faktore in gegewe gevalle. Hiervoor is slegs tronkstraf toereikend. Nes kastrering is die doodstraf werklik heidens en onnodig drasties, omdat tronkstraf die gemeenskap beskerm en tog die moontlikheid inhou van bekering of altans beterskap t.o.v. toekomstige gedrag. As ons die doodstraf goedkeur, kan sterilisasie en kastrering verdedig word op filosofiese grondslag, maar selfs dan glo ek dat ons huidige geneeskundige kennis sulke beredenering beroof van logika (*vide infra*). Dit is bloot versinsel om te beweer dat ek ooit direk of indirek voorgestel het dat kastrering by mense op die proef gestel moet word om sosiale redes. Indien so 'n gedrog-wet ooit werklikheid sou word in Suid-Afrika, wonder 'n mens natuurlik wie die operasies sal uitvoer. Dokters word immers uitgeskakel deur hul Hippokratiese eed en tradisie.

Ter afsluiting wil ek graag weereens 'n baie pertinente feit benadruk. Ons kennis van die ekstragenitale oorsprong van die seks-hormone is maar enkele dekades oud. Tog blyk dit ou nuus te wees vir die ou Kerkvader, Jan Chrysostom (*circa* 400 A.D.), toe hy reeds 16 eeue gelede die Christelike standpunt as volg geheel en al bevredigend beskryf het:[7]

‚For all these reasons, I exhort you to avoid such iniquity (kastrering). Moreover, you must know that the libido is not weakened by this procedure, but becomes more ardent, because it has other sources in us; it simmers elsewhere. It is in the head (hipofise), according to some, in the loins (?byniere), according to others, that this raging passion is born. I say that it has no other origin except a lascivious soul and licence in thoughts. If the soul has the virtue of temperance, no damage can come to it from physical emotions'.

J. W. Mostert

Rileyweg 187
Overport
Durban
10 November 1959

1. Solomon, P. (1955): New Engl. J. Med., 252, 369.
2. Briewerubriek (1959): S. Afr. T. Geneesk., 33, 656.
3. *Idem* (1959): *Ibid.*, 33, 926.
4. Denning, Lord Justice (1959): Brit. Med. J., 2, 692.
5. Brief van die Heilige Apostel Paulus aan die Kolossense, hfst. 3, v. 1-2, 9-11.
6. Briewerubriek (1959): S. Afr. T. Geneesk., 33, 848.
7. Flood, D. (1958): *New Problems in Medical Ethics*, 3e uitgawe, p. 15. Cork: Mercier.

REGISTRATION OF OPTOMETRISTS

To the Editor: I think it is about time that the medical profession in this country was made aware of the struggle of the Ophthalmological Society of South Africa in attempting to resist the challenge by fringe groups who have attempted to 'muscle in' on the practice of medicine without any intention of being of service to the public, but, basically, with the idea of sharing in the monetary rewards.

The opticians have been crying for years that any person can call himself an optician and test eyes. It is well known that there are many 'quacks' or 'brilsmouse,' especially on the platteland, who travel around peddling spectacles and who have not had any training whatever. The opticians' demand for the elimination of these persons, whether actuated by the need to protect the public or by the need to protect themselves from unfair competition, is a just and fair one, and the Ophthalmological Society fully agrees with this demand.

At one time it was thought that registration of opticians would meet this demand, but that the opticians themselves are not in favour of the present rules is shown by the fact that in the 15 years of the voluntary register's existence, only one optician has had himself admitted. They feel that the present rules are too restrictive, and have candidly admitted that they have advised their members not to register *until the rules are relaxed*.

The Ophthalmological Society has also been against the register in its present form. It feels that the present rule that a registered optometrist shall not examine and supply with glasses any person in whom a pathological condition should be suspected is farcical. A person without medical training is not in a position to suspect the existence or otherwise of pathological conditions in the eyes. Any relaxation of the rules or lifting of restrictions must increase the danger to the public. The present voluntary register must therefore be changed to suit both the opticians' cry for protection and the ophthalmologists' fear for the health of the public.

With these points in mind, the Society proposed that the present register be scrapped, and that a register for trained opticians be instituted, recognizing their right to dispense spectacles, but not their ability to recognize pathology nor their ability to carry out a complete eye examination. The latter abilities could only be attained after a medical training. At the same time, not wishing to interfere with the livelihood of those opticians who consider

themselves trained to refract, the Society proposed that if they wished to test eyes, they could do so, in the same way as the pharmacist does counter prescribing. The public would then be fully aware that the examination of their eyes by the optician was not a full one, and did not exclude the presence or otherwise of pathology.

These proposals were put to the Executive Committee of Federal Council before the Council meeting at East London by the President of the Ophthalmological Society, but not to the Federal Council itself. The next day, much to our surprise, Federal Council voted in favour of relaxing the rules of the present register in order to make it more attractive for the opticians.

Medical Council lost no time in convening a meeting between the Optical Association and the Medical Association to consider new rules for the registration of opticians as medical auxiliaries, based on Federal Council's vote. In spite of the view of the ophthalmologists, the Medical Association, without consulting them, was prepared not only to implement the resolution of its Federal Council (against which we can only protest but must now accept), but is also prepared to go further and relax more rules in its haste to get the opticians registered. This is where the inroads into medical practice is occurring, and while it concerns only the ophthalmologists at present, it may well occur with other medical auxiliaries in other fields.

Why is our Association, a body which is supposed to represent its various Groups and to look after their interests, in such a hurry to get the opticians under the Medical Council? We have reason to believe that the case for registration in this form was put to Federal Council in such a way that the Council was stampeded into its resolution. We believe that a misrepresentation of facts occurred, whether deliberate or not we cannot say.

Our fight now is against our parent body, who are negotiating 'on our behalf' but are riding roughshod over all our objections. We appeal to our medical fraternity to take up the cudgels on our behalf.

It seems that the Executive Committee of Federal Council is hopelessly out of step with the Ophthalmological Group. A minute but vociferous minority has its ear and sympathy, but the voice of the vast majority (98% according to a recent poll) is not heard.

Can our medical colleagues help us in this fight?

Anti-lechis

Johannesburg
11 November 1959

[A copy of the above letter was submitted to Dr. J. H. Struthers, Chairman of Federal Council who has forwarded, for publication, the following reply.
—*Editor*]

To the Editor: The letter from *Anti-lechis*, who is presumably a member of the Ophthalmological Society of South Africa, reveals very strong feelings of disapproval concerning the decisions of the Federal Council, who are accused of riding roughshod over all the objections of the Society. However, I am sure the writer knows that there is a much larger issue at stake. The subject at issue is really whether it is in the best interests of the public and the profession as a whole that supplementary health services should be registered by, and under the control of, the South African Medical and Dental Council.

This whole subject has been on the Agenda of Federal Council for several years, and the Parliamentary Committee was charged with the task of fully investigating the problem. Opinions and comments were invited from Branches and Divisions of the Association on more than one occasion, and memoranda were prepared and submitted to Federal Council setting out the advantages of compulsory registration, voluntary registration and no registration. In 1958 the Parliamentary Committee finally unanimously recommended in favour of registration of all supplementary health services under the control of the South African Medical and Dental Council.

In view of the fact that compulsory registration by the Council necessitated a change in the law, and this was not contemplated at the time, the Committee recommended in favour of voluntary registration.

The *status quo* regarding optometry has been highly unsatisfactory as your correspondent concedes. Rules and regulations had been laid down by the Medical Council for the voluntary registration of optometrists in 1945 which were accepted by the Medical Association but were unacceptable to the optometrists and practically no registrations took place.

In 1956 the Ophthalmological Society of South Africa took the line of no compromise whatever regarding optometry, but in April 1957, Federal Council received a memorandum from the Cape Town Sub-Group of the Society urging a compromise.

In September 1957, in Durban, the Medical Council arranged a a conference with representatives of the Medical Association (who were then represented by ophthalmic surgeons) and the Society of Optometrists. This conference was completely abortive and achieved nothing except to increase illwill.

In October 1958, representatives of the Ophthalmological Society of South Africa were received by Federal Council, but when these representatives addressed the Council they stated they were speaking in their personal capacity and not as representatives of the Society. At this stage all the documents and memoranda and reports that had been prepared since 1954 on this whole subject were in the hands of the members of the Federal Council. Federal Council then recommended that a further attempt be made to try to solve the problem.

The Medical Council decided to convene a further round-table conference in July 1959, and in April 1959 Federal Council specifically decided to put the matter in the hands of its Executive Committee and nominated the three members of the Executive Committee in the Transvaal to act as the representatives of the Medical Association. An amendment instructing the Executive Committee to coopt two members of the Ophthalmic Surgeons' Group to represent the two points of view within this Society was rejected.

A compromise agreement was reached which was ratified by each of the three parties concerned. Prior to its ratification by the Federal Council, the Executive Committee, on the day before Federal Council met, received a deputation from the Ophthalmological Society of South Africa consisting of its President and Secretary.

A new proposal was then presented by this deputation which, as your correspondent indicates, was to scrap the present register and introduce new principles. This was considered and reported to Federal Council but was not accepted and the compromise achieved in July 1959, at the round-table conference, was ratified by a more than 3 : 1 majority.

I am satisfied that in arriving at its final decision, Federal Council members fully realized the implications of the matter to the profession as a whole, and understood the views of the Group who were most intimately concerned.

The agreement included the appointment by Medical Council of an *ad hoc* committee to draw up rules and regulations within the agreed framework. The President of the Ophthalmological Society of South Africa was nominated by the Association and appointed by the Medical Council to serve on this Committee.

When the *ad hoc* committee met, the question of orthoptics was raised, and no other item on the Agenda was reached. The suggestion that all cases requiring this treatment must first be referred to a *medical practitioner*, although accepted in the spirit of compromise by the optometrists, was turned down by the President of the Ophthalmological Society of South Africa, who considered that all cases must first be referred to an *ophthalmic surgeon*. It was not considered that the family doctor was qualified to advise his patient adequately as to what was in his best interest.

A request has been received from the Ophthalmological Society of South Africa to meet a Sub-Committee of Federal Council with a warning that there will be many resignations from the Medical Association if this is not conceded. A special meeting of the Executive Committee is being held early in December to meet this deputation.

When there is a strong clash of opinions and a general agreement is impossible, it is surely reasonable that ultimately the views of the majority must prevail. That is the democratic way.

J. H. Struthers
Chairman, Federal Council
Medical Association of South Africa

P.O. Box 1521
Pretoria
17 November 1958